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ART. I.—COMMERCE BETWEEN THE LAKES AND THE SOUTH SEAS.

BY THE CONTRA-COSTA, OR MICHIGAN, MISSISSIPPI, AND MEXICAN GULF ROUTE.

BY W. M. BURWELL.

In the reign of the Grand Monarque, France had projected a theory of colonization on the American continent which was intended to restrict the expansion of her great rival. His wise Minister had planned a *cordon* of military posts which was to strangle the infant settlements of England, while enterprising priests, combining the spread of religion with the progress of commerce, had organized an intercourse between the American lakes of the north, and the Gulf of Mexico. They had devised such a connection between the waters of the St. Lawrence and the Mississippi as would have enabled France to insulate, and circumnavigate, the whole Atlantic possessions of the English. We have elsewhere undertaken to show that a recent French writer was mistaken in saying that the Latin race, or at least the Gauio-Latins, have no genius for colonization. That race has been signally successful, both in North and South America. The failure of Latin domination on any part of this continent has been owing to the superior skill of the English in the management of ships. By this means they have cut off both the

connections and the supplies of the French, and Spanish colonies, and effectually stopped immigration from these countries to America.

The enterprise and success of the French in Canada and Louisiana was astonishing. At the beginning of the eighteenth century they had established a chain of posts from Quebec to New Orleans, the principal of which were Duquesne, Kaskaskias, and Natchez, and they had acquired a paramount influence over the Indians along this whole frontier. It was in 1673 that a band of French and Canadians came from Quebec to the Mississippi. They were led by Joliet, a merchant, and Father Marquette, a monk. They came from the St. Lawrence, and floated down the Mississippi low enough to satisfy themselves that it emptied into the Gulf of Mexico. On their return to Quebec they were received with civil and religious ceremonies, and with the congratulations of the whole people. The bells of the Cathedral tolled all day, and the Bishop, followed by the clergy and people, chanted a *Te Deum* upon the propitious expedition. LaSalle pursued the same object when, a few years later, he proposed to the Count Frontenac, Governor of Canada, the gigantic plan of frontier defences of which we have spoken. He was as ignorant of the continental connections as Columbus and other geographers. LaSalle supposed that the west branch of the Mississippi (the Missouri) had its source in the Chinese Empire. He predicted that France would not only be mistress of all the territory between the St. Lawrence and the Mississippi, but would command the trade of China flowing down the new and mighty channel which he was to open between the St. Lawrence and the Gulf of Mexico. Again, this earnest explorer returned from France to Quebec, again, he traversed the intervening wilderness, and, in 1682, reached the mouth of the Mississippi. It even happens that the first founder of the French Empire in Louisiana was of Canadian descent,* and subsequently many Canadian refugees came to Louisiana. The intercourse between the north and south, by way of the Michigan and Mississippi was well defined, and nothing save the intervention of a foreign and hostile colonization first separated these two plantations of the French people, and subsequently interposed such obstructions as defeated the commercial plan altogether. It

*There were other expeditions from France to Louisiana, especially one headed by Tonti, in 1685, intended to co-operate with LaSalle. Another, subsequently, by the same, in 1700.

was natural. The British American colonies were based on a commercial intercourse between the mother country and the western interior. The furs, skins, tobacco, and lumber of these colonies were conveyed to the seaboard and built up the ports of the Atlantic. The cities of Pittsburg, Cincinnati, and Louisville collected this trade and conveyed it directly, or by the Lower Mississippi, to the eastern ports.

Separated, as the colonial Empire of France had been, by the force of war, and by an improvident policy, it was not surprising that the theory of Colbert had never been carried into effect. The intercourse between Canada and Louisiana, small as it was, was carried on coastwise. The interior productions of New York and the New England States took the same direction. When the Spaniards succeeded the French, in 1769, in the government of Louisiana, a positive obstacle was offered by them to the commerce of the lakes and river. The British Government did all in its power to acquire the free navigation of the Mississippi to its settlements above Louisiana. The history of the period is full of the negotiations and evasions, instigated by this important subject. At a later date, the American Government manifested an indifference to this subject by giving to Great Britain terms of co-navigation on the Mississippi, which occasioned at that day great censure. At a later period the Spanish Government attempted to suppress, or to suspend the Anglo-Saxon progress by high commercial charges. It even revoked the right of American deposit at the port of New Orleans. Then its policy underwent another change. Overtures were said to have been made to Americans of high influence in the West to become the pensionaries of Spain, and advocate the annexation of the Western Territories to the Spanish Crown. Neither line of policy was successful. The expedition of Burr, an American ex-Vice President, occasioned general condemnation. It was, however, based upon the idea of connecting the internal commerce of the Western States with the silver mines of Mexico. The purchase of Louisiana by the United States, reunited under the same government the interior regions and outlet of the West, and the limited products of Western industry were floated down from St. Louis, Pittsburg, Cincinnati, and Louisville to the Gulf. For this intercourse the river current was adequate, controlled, as it was from 1812, by steam. At a

later day the tide of immigration crossed the Ohio. It settled around the lakes. Then came the railroads and canals. Then gift lands, and with these came modes of connection of which neither Colbert, nor Father Joliet and Hennepin, nor Marquette, nor La Salle, ever dreamed. Now, at the base of Lake Michigan, is the city of Chicago, with more than a quarter of a million of inhabitants, with hundreds of millions of values invested in commerce, with a system of railroads radiating from every point of the compass where there is land to build them. Now there is a canal from the Illinois river to Lake Michigan. The summit level is but nine feet above the waters of the lake. Sanitary considerations, connected with commercial objects, induces Chicago to provide for the removal of that bar, and the waters of Lake Michigan will pour into and strengthen the Illinois river. At this day the Illinois Central Railroad traverses the space between Lake Michigan and the forks of the Mississippi and Ohio at Cairo. It has planted a settlements of a little less than a million along its line. It can convey any amount of commerce with its locomotives and its four thousand cars. It has its workshops and its public lands. It has its main stem, and its branches of twelve hundred miles, which reach and connect with the Mississippi, and the Illinois, and the Ohio. It fills its boilers from the lake, and from the Mississippi. It could dead-head Fathers Joliet and Hennepin, were they on earth, and, with its southern connections, transport them from Chicago to the Balize in sixty hours, instead of allowing them to toil for more than a year over the same journey. More than this: This great railroad company has taken under its charge the construction of lake wharves and break-waters at Chicago. It is intended to build seven miles of wharves on a depth of thirty-seven feet. Can they do all this? Their last report is before us. They report gross receipts of more than eight millions of dollars for the last year. From another source we see that their stock stands at one hundred and forty-seven dollars, or nearly fifty per cent. above par.

The Illinois Central Railroad—which should be called the Michigan and Mississippi Railroad—was projected upon the theory of giving access and value to the public domain of the Federal Government. It naturally drained towards Lake Michigan, and its southern terminus at Cairo was for a long time a moated and pesti-

lential village, which the inhabitants had to bale out, like an old flatboat, after every high tide. The grander destinies of the road and canal were not appreciated by those who had completed them. There were some special reasons why this should have been the case. Within thirty years immediately before the war, had arisen the most remarkable development of agricultural exports that the world had ever known. The Americans of the South, stimulated by the demand for cotton, sugar, tobacco, and rice, had concentrated their whole energies upon the application of a disciplined slave labor to these staples. The result was as follows in the year 1861 :

Cotton, 4,500,800 bales	$225,000,000
Sugar, 500,000 hhds.	25,000,000
Tobacco, 90,000 hhds.	7,000,000
Total values	$257,000,000

These staple crops were so valuable that the planters could not afford to produce their own provisions. There was very little foreign demand for Western products, so that the surplus, both of cereal and animal food exportable by the then West, was consumed in the Southern planting States, and, in effect, exported in combination with the industry and productions of those States. The great West did not then need the Mississippi outlet for exportation. Their tropical products were, however, imported through the Mississippi, because the present ways of artificial communication did not then exist.

The immense growth of the Northwest, the reduced capacity of the planting States to consume even as much as before the war, and the great railroad and canal systems, which we have described, have created at once a cause and a capacity to execute the original idea of commerce between the lakes and the Gulf. We are then prepared to see the grand idea of Colbert and La Salle carried out. The Illinois River Canal carries four feet six inches water from Lake Michigan to the Mississippi river. It has a length of one hundred miles. The Illinois Central connects the lake, by a line of three hundred and sixty miles, with the Mississippi at Cairo, where it is always open. Besides this, there will be other longitudinal lines of canal and railroad connecting the same navigation, and crossing at Paducah, Louisville, and elsewhere, these great streams, which are thus made independent alike of drouth and frost. It was not until the Mississippi and its tributaries, with the coast of the lakes, had passed under the control of the United States—it was

not until European immigration had poured its millions into the prairies of Illinois, Indiana, and Michigan, that the original theory of discharging the productions, and receiving the supplies, of the regions around the lakes by means of a connected communication with the Mississippi river and outlet could be revived and carried into effect. This may now be done.

The political and international obstacles to this intercourse have been removed. The civil war of the United States originated in a difference in the mode of labor, and in an apprehension of pecuniary loss and social disturbance resulting from emancipation and confiscation of slave titles. This result has befallen the South, and accepting it as inevitable, we are seeking in an industrial system adapted to the exigency, the means of alleviating its evils. Among these means are the cultivation of commercial relations with the Northwestern interior, and with foreign countries. There are two great reasons why the Northwestern States are now, for the first time, prepared to co-operate with them: 1. The population of the Northwest before the war, and before the provision markets of England were opened to them, exported very little more provisions than would supply the planting interests of the Southern States. With the enlarged facilities of importing, and providing for immigrants, they now make a surplus of, perhaps, fifty millions of bushels of grain, with a proportional exportable production of animal food. As this production increases, especially by the passage of immigration west of the Mississippi, the importance of a cheap water way to the sea becomes more and more imminent. For similar reasons the demand of the immigrant population for tropical staples and fruits becomes greater. 2. The immense growth of the West renders it impossible that its surplus products should find a vent by the artificial outlets of the East. The suspension of the water-ways to the East during four months of winter and spring, constitutes a charge on production which it can only escape by employing the natural outlet of the Mississippi. The great river will thus furnish an escape from the exactions of a monopoly, and a means of regular and adequate access to the markets of the world for the whole American Empire in the West. Peace and science have thus effected that commerce which the first French explorers only projected.

It will be, then, proper to consider of what this commerce con-

sists, and how far it may be adequate to justify the transfer of the line of commercial intercourse between the latitude of the lakes and the tropics from the coastwise voyage to the Michigan, Mississippi, and Mexican Gulf route. Let us first speak of the

TERRITORY, POPULATION, AND PRODUCTS OF THE LAKE BASIN.

The territory which surrounds this basin on the east and north may be best described in tabular form. We may add that the new and expanding States, and Territories, which are being planted on the west side are added in the table which follows. It will be seen that the States of Utah and Nevada are included, and it may be said that their connection is rather with the Pacific than the Atlantic ports and markets. This is, undoubtedly, the fact in regard to much of their commerce. If they export grain it will most probably be by way of St. Francisco. Their precious metals will, beyond question, pass over the Pacific Railroad to New York and Liverpool, but an inspection of the natural facilities of intercourse between those States and the tropics will show that all the groceries, and fruits produced in the one, and consumed in the other, will pass over the Michigan and Mississippi route, and will be distributed from St. Louis and Chicago as grocery centres :

LAKE BASIN.

Area, population, and product in precious metals of certain States in 1860 *and* 1867, *of the North and West, including Canada West.*

States.	Sq. Miles.	Population	Product.
Nevada	112,090	36,000	$20,000,000
Arizona	113,916	3,000	500,000
Utah	88,056	110,000	.....
Montana	143,776	32,000	12,000,000
Idaho	90,932	20,000	6,500,000
*Minnesota and Dacotah	166,025	175,000	
Wisconsin	53,924	795,873	
Iowa	50,914	674,048	
Michigan	56,243	749,112	
Canada West and North	147,832	1,250,000	
Total	1,023,708	3,525,033	$39,000,000

*Estimated for 1860.

POPULATION AND AREA OF THE LOWER MISSISSIPPI VALLEY, CENSUS 1860.

States.	Popula'n.	Area.
Arkansas	435,427	52,198
Missouri	1,182,317	67,380
Louisiana	709,290	41,255
Mississippi	791,395	47,156
Kentucky	1,155,713	37,680
Tennessee	1,109,847	45,600
Illinois	1,711,753	55,405
Ohio	2,359,599	39,964
Indiana	1,350,941	33,809
Kansas	107,110	114,798
Nebraska	28,842	120,000
Total	10,942,234	655,245

Such is a summary estimate of the population, and area, of a portion of the territory which lies around the head of the Mississippi and the basin of the lakes. It will be observed that it does not claim portions of Western Virginia and Pennsylvania, which are, geographically, due to the Mississippi. We cite ten millions of people, and seven hundred thousand square miles of inhabited country as an indication of what may be expected. The best estimates we can obtain were as far back as the census of 1860, *but a single year is a western century.* With Mr. Burke, when speaking of the colonial progress of 1776, we may be inaccurate, we may be excessive, but "while we pause to make the figures, the fact is upon us." The rapid growth of the Rocky Mountain States, and their almost incredible production of twenty-three millions of the precious metals in a single year, leaves to rational inference what must be the present, and prospective, demand of this population for the products of the tropics. Surely from five to ten millions of people, with the reinforcements of natives and immigrants, and stimulated by the tastes of civilization, must create an immense demand for a special product which can be grown no where else except in the tropical climates and south of New Orleans.

But these tropical countries, on the other hand, have an equal desire for many products of the Northern and Northwestern country. They need their provisions and live stock, their iron and wooden wares, their manufactures and machinery of every description. We may state that before the war the trade of these southern countries amounted annually to more than five hundred million of dollars gold. Yet it will not be amiss to condense from such resources as are at hand the area, population, and productions of certain

American States which are in commercial relations with the United States:

Trade of the world with South, Central and Insular America, and with Mexico, 1860		$525,000,000
Between the United States and Cuba	$ 65,000,000	
Between the United States and all other Spanish American countries	50,000,000	
Total	$115,000,000	

The total population of Spanish America* is just about that of the United States, thirty-three millions. Our trade with them is but $1 25 per capita. If the Cuban proportion was general, our annual trade with Spanish America would be $1,163,750.

From 1820 to 1850, our commercial exchanges with Cuba were ten to fifteen million of dollars. In 1860 they amounted to $46,428,434, or $33 per capitem for the population of Cuba, then 1,395,530. This trade is half that of Cuba, with other countries, and double that of the United States with all other of the West India Islands.

TRADE OF THE UNITED STATES WITH MEXICO.

From 1821 to 1831, this trade had reached $15,000,000 per annum. It then became very irregular, and had declined in 1860 to $5,905,103. Assuming the population of Mexico at seven millions, the last sum was a trade of but 84 cents per head. The ratio of our trade with Cuba would raise this trade to $228,750,000 per annum. We may digress to explain somewhat the cause of this decline. A report of the American *Charge d'Affaires* at the City of Mexico, in the year 1867, explains that the rate of commercial exactions are so great on foreign commerce, and the facilities for their evasion so accessible to a few resident merchants, that American shippers have very little show in the Mexican market. After having made several applications for an exact statement of these duties, the *Charge d'Affaires* at last obtained the following, then payable by foreign merchandise imported into the Mexican States:

1. Import or tariff duties.
2. International or inland duty, ten per cent. on the import tariff.
3. Public improvements, twenty per cent. on the same.
4. Railroad construction tax, fifteen per cent. upon the same.
5. Counter-register, twenty per cent. on same.

*We mean that part of America originally settled by the Spaniards.

6. Municipal tax for Vera Cruz and Tampico, three and a half per cent. on the same.

7. Municipal, at other custom-houses, twelve and a half cents on each package. Other duties, as hospital, benefices, etc.

8. Federal contribution of twenty-five per cent. upon counter-register.

This schedule does not include two additional duties of eight and twelve per cent., so that the total amount of duties upon foreign merchandise coming to Mexico is ninety-three and a half per cent. upon the invoiced price.

UNITED STATES TRADE WITH MEXICAN PORTS, 1867.

Exports from the port of Vera Cruz for the quarter ending September 30, 1867.

Description.	Value.
Jalap	$ 4,475 03
Flour	6,500 00
Coffee	17,634 67
Hides and skins	10,877 03
Wood	2,853 14
Vanilla beans	8,485 44
Cochineal	23,422 52
Indigo	17,000 00
India-rubber	52 50
Iron, rags, brass, copper, etc	1,691 75
Total	$92,992 08

This sum, multiplied for the year, would amount to $371,968 32.

TAMPICO.

Exports from Tampico to the United States for the quarter ending September 30, 1867.

41,639 goat skins, 76,686 lbs istle, 161 hides	$34,010 17
30,232 pounds jalap	10,142 46
150 quintals fustic	465 75
4,700 pounds copper	418 71
Fruit	1,456 50
53,000 pounds sarsaparilla	5,025 31
Total for quarter ending June 30, 1867	$51,518 90
Total for quarter ending Sept. 30, 1867	23,187 82
Total for six months	$ 74,706 72
Total for 1867	$149,413 00

Matamoras exported to the United States, in 1867, total values to the amount of $4,142,169, of which 1,876,148 26 was in specie.

These are a few commercial statements intended to indicate the character and capacity of the Mexican trade. When it is stated that this foreign trade amounts annually to about fifty millions of dollars, it will be seen that the United States enjoys but an insignificant part. When it is added that the internal, or inter-state

trade of Mexico is computed to be worth four hundred millions annually, the importance of our participation will be better appreciated.

TRADE WITH GUADALOUPE, 1867.

White sugar, pounds	16,839,357
Brown sugar, pounds	17,102,634
Molasses, gallons	491,028
White rum, gallons	1,738 270
Coffee	144,749
Cotton, pounds	184,841
Cocoa, pounds	65,045
Cassia, pounds	1,206
Roucou, pounds	126,836
Logwood, feet	57,600
Vanilla, pounds	10,000

TOTAL EXPORTS OF PORTO RICO, 1867,

Sugar, 136,459,853 pounds, at 4@5c	$5,458,394
Molasses, 5,068,094 gallons, at 16c	810,895
Rum, 164,261 quarts, at 8c	13,140
Coffee, 20,734,135 pounds, at 15c	3,110,120
Tobacco, 2,119,014 pounds, at 4c	84,760
Hides, 784,898 pounds, at 12c	94,187
Cotton, 792,518 pounds, at 20c	194,503
Total estimated value of exports	$9,766,002

SHIPMENTS FROM PORTO RICO TO THE UNITED STATES, 1867.

Sugar and Molasses, value	$677,700
Oranges, 268 barrels	579
Total values	$678,279

TOTAL EXPORTS FROM ST. DOMINGO, CITY, 1867.

Sugar, pounds	188,570
Tobacco, pounds	148,901
Coffee, pounds	41,869
Wax, pounds	67,469
Honey, gallons	4,347
Cigars, M	89
Cocoa, pounds	57,244
Fustic, pounds	432,450
Logwood, pounds	469,540
Lignumvitæ	9,933,614
Satin wood, feet	34,000
Mahogany, feet etc	1,215,430
Total value	$227,808 80

EXPORTS TO THE UNITED STATES FROM PUERTO PLATA.

Hides, pounds	5,562
Tobacco, seroons	31,849
Wax	43,383
Mahogany, feet	801,484
Values	$409,107 09

EXPORTS TO THE UNITED STATES FROM NICARAGUA, 1867.

Deer skins	$35,020 94
Dry hides	19,369 62
Muscovado sugar	7,475 11
Raw sugar	3,478 64
Cedar logs	4,357 45
Cotton	2,213 21
Coffee	1,520 53
Oranges, lemons, and limes	765 50
Indigo	510 80
Rubber	449 42
Hammocks, chocolate, dried plantains, etc	96 45
	75,257 67
Five cotton gins reshipped to New York	2,500 00
	77,757 67

EXPORTS FROM CENTRAL AMERICA TO THE UNITED STATES.

11,109 quintals ivory nuts	$ 16,533 60
1,265 M cocoa-nuts	24,548 98
288 pk'gs India rubber, refined, 52,119 lbs	12,734 08
830 pk'gs India rubber, unrefined, 132,355 lbs	23,758 65
4 pk'gs pickum rubber, 407 lbs	81 40
570 bags coffee, 72,426 lbs	8,693 29
9¼ tons logwood	166 64
39 tons fustic	390 00
1,271 dried ox hides, 22,651 lbs	7,920 68
12 packages deer skins, 1,602 lbs	489 05
34 packages goat skins, 3,300 lbs	703 50
1 package calf skins, 161 lbs	11 27
3 packages tiger skins	1 80
198 bales tobacco, 27,433 lbs	1,922 68
3 seroons ipecacuanha root, 301 lbs	300 00
1 bale sarsaparilla, 158 lbs	26 86
4 seroons cloves, 528 lbs	105 60
48 cases balsam tolu, 489 lbs	2,951 20
15 bales indigo, 2,250 lbs	1,575 00
2 kegs tamarinds, 97 lbs	4 00
4 pk'gs tortoise shell, 336 lbs	672 00
3,000 dozen straw hats	2,900 00
2 barrels St. Croix sugar, 336 lbs	22 87
Old copper, 7,440 lbs	796 32
Old brass, 3,782 lbs	302 56
Old composition metal, 1,564 lbs	82 26
13 boxes pimento dram, 13 dozen	39 00
11 boxes lithographic stones, 1,580 lbs	79 00
Total	$107,801 61

VENEZUELA.

The port of Laguayra is one of the most important upon the coast of South America. From its vicinity to the United States its commerce may be easily turned to great advantage. The gross value of its exports in 1867 was $4,326,876. Among these products were 15,203,458 pounds coffee, 5,186,211 pounds cotton, 611,477 pounds cocoa, 61,157 pounds indigo, 56,362 pounds hides, 192,466

pounds brown sugar, 18,186 cocoa-nuts, fustic, lignumvitæ, chocolate, etc., etc. The value of exports to the United States was $534,208, showing a decrease; to Great Britain, $1,076,716, showing an increase compared with the previous year.

ECUADOR.

The value of produce and exports, from Guayaquil for the year 1866, was $4,719,413 68. The value of exports from Guayaquil to the United States in 1867, was $260,415 99.

BRAZIL.

The exports of coffee from Rio Janiero for the year 1867 were estimated at 2,246,374 bags, of which 984,428 bags were to the United States 1,269,946 bags to Europe and elsewhere.

The importations of flour at Rio Janiero for 1867 were estimated as follows: From the United States, 92,698 barrels; Europe, 37,056; elsewhere, 80,079. Total, 239,833.

It may not be uninteresting to observe some of the points in the United States, and elsewhere, from which this flour is shipped: From New York, estimated, 5,187 barrels; Baltimore, 53,510; Richmond, 9,160; California, 23,008; Chili, 73,455; Trieste, 61,000. Certainly a good deal of Western flour must be shipped from Eastern ports which might seek a tropical market to more advantage through the port of New Orleans.

TRADE OF THE WEST COAST OF SOUTH AMERICA.

A glance at the map will show a geographical advantage in the Mississippi and Michigan route in its communication with the productive region which lies along the west coast of South America. We must refer the reader to the tabular statements which follow for an indication of the extreme values produced by those States:

STATEMENT OF EXPORTS TO ALL NATIONS FOR THE YEARS 1866-7, FROM

Ecuador	$ 4,719,413
Peru	30,591,309
Chili, estimated	5,000,000

IMPORTS FROM THE UNITED STATES.

Ecuador	No returns.
Peru	$1,573,333
Chili, estimated	707,728

The geographical advantage is this: The western coast of South America stretches across seventy parallels of latitude. The three

States of which we have treated have a population of three and a quarter millions, a territory embracing a thousand square miles, with an export capacity which we have stated at about forty million of dollars, the chief part, we believe, to consist of the precious metals. Now, this territory lies on the Pacific Ocean. Its commerce with the United States must be carried on or across the Isthmus of Central America, because the Andes wall which separates it from the waters of the Atlantic is almost impassible. The highest summit is more than twenty-three thousand feet, and the pass upon the railroad projected to run from Caldera, in Chili, to the Central Railroad of the Argentine Republic, is sixteen thousand and twenty-three feet. Shut off thus from any eastern connection with the United States, the commerce with the western coast of South America is compelled to double Cape Horn, with a voyage of thirteen to fourteen thousand miles, or to cross the Isthmus of Central America.

It will be unnecessary to make even a summary of this trade. It is only intended to show its value, its variety, and the small proportion in which the United States participates. To reduce this estimate to anything like accuracy, would be useless, since it would be subject to so many explanations, and to such defects in want of uniform returns as to render it subject to very just criticism. The materials of an exact valuation of South American commerce scarcely exists. At least they are inaccessible to the writer, without an amount of labor which the estimate would not repay.

HOW THESE TWO GREAT AGGREGATES OF COMMERCE MAY BE BROUGHT TOGETHER.

We have shown: 1. That the interior region of the United States lying around the lakes and in the Mississippi basin contains millions of people, and produces, at a moderate estimate, one hundred millions of values exchangeable, in good part, against tropical products. 2. That the population of the continental countries south of New Orleans contain about thirty-three millions of people, and that they have exchangeable values abundantly adequate for a direct commerce with the interior of the United States.

We now propose to show the routes by which this intercourse is conducted, and will then compare with this route another, which we deem the shortest, cheapest, and most natural. It will then remain for the great American interests which require the tropical products

to decide by which of these two routes their intercourse with the countries at, and beyond the tropics shall be conducted.

We will suppose that the line of commerce between St. Louis, Louisville, Cincinnati, and Chicago, on the one hand, and Rio Janeiro, Panama, Havana, and Vera Cruz on the other, will represent this intercourse. The time and distances are as follows:

COASTWISE ROUTE BETWEEN THE NORTHWEST AND THE SOUTHERN AMERICAN PORTS BY STEAM.*

	MILES.	D.	H.
From New York to Rio Janeiro	5,843	24	8
.. .. .. Valparaiso	5,920	24	12
.. .. .. Panama	2,214	9	5
.. .. .. Vera Cruz	2,010	8	9
.. .. .. Havana	1,260	5	6
.. .. .. Chicago, all rail	890	1	12

MISSISSIPPI AND MICHIGAN ROUTE.

From New Orleans to Havana	645	2	16
.. .. .. Tampico	735	3	1
.. .. .. Vera Cruz	830	3	11
.. .. .. Sisal	510	2	4
.. .. .. Aspinwall (Panama)	1,400	5	2
.. .. .. Pernambuco	3,946	16	1
.. .. .. Rio de Janeiro	5,136	25	13
.. .. .. Kingston, Jamaica	1,300	5	4
.. .. .. Porto Rico	1,960	8	1
.. .. .. St. Thomas	2,035	8	12
.. .. .. Martinque	2,330	10	00
.. .. .. Venezuela, via Jamaica	1,980	8	2
.. .. .. Rio Janeiro	5,136	21	4
.. .. .. Panama	1,600	7	00
.. .. .. Guayaquil, Ecuador	2,190	9	1
.. .. .. Callao, Peru	3,100	12	15
.. .. .. Cobija	4,700	18	8
.. .. .. Valparaiso	6,290	26	00
.. .. .. Chicago, all rail	866	1	12

†It is obvious from the map that the distance from New Orleans, coastwise, to New York, is 1785 miles, or seven days and four hours from Havana.

From these statements it will be seen that there is a saving by the Mississippi route of 731 miles, or three days and four hours, between Rio Janeiro and Chicago. Of 814 miles, or three days and

*We are indebted to Messrs. Charles A. Whitney & Co., of New Orleans, for the time and distance between New Orleans and the southern ports. The distances are from the city of New Orleans, and the time is computed on the basis of ten knots an hour.

†It is our purpose to illustrate the geographical differences of these two routes in favor of the Mississippi and Michigan, by a map, which will make the argument to the eye. Should the map not be engraved in time for this number of the REVIEW, it will be forwarded with the next, and may be bound with the volume.

nine hours between Panama and Chicago, and of 615 miles, or five days and twelve hours between Havana and Chicago.

We continue to remind our readers that Chicago is taken as an extreme Eastern point for the purpose of representing the whole interior Western region of which we treat. The saving of time and distance between St. Louis, Louisville, and Cairo, is still greater, and each may demonstrate its superior interest in the course of trade by taking the figures furnished as the basis of computation. If these figures be correct in respect to Chicago, how much more conclusive must they be to the whole Mississippi Valley proper, to Dubuque and St. Paul, and to the whole Missouri river from St. Louis to Fort Benton?

But the interior cities will not forget that there is something more involved than the mere economy of time, freight, and insurance. Suppose a cargo of coffee arrives at Chicago from Rio, with a saving of 814 miles, or of three days and nine hours. It is very obvious that this advance would give Chicago a great advantage in selling to a Western consumer, since it would be delivered to him as much sooner as the difference in time. Chicago could, moreover, afford to supply at least half the intervening distance between that city and New York with this produce imported direct from Brazil. But there is another reason of the highest importance to the Western cities. It is that the whole freights now paid on the coast route go to ocean shipping and to Eastern railroads and canals, whereas the whole of these freights, after entering the Southern waters, and territory of the United States, would go to the ocean and river craft, and the railroads and canals of the Western States. Thus making this element of transportation go to the credit of the tax-payers, and stockholders, and commercial interests of these States. If the freights annually paid for coastwise and internal transit between Southern ports and Western cities amount to no more than three millions of dollars, even that, is well worth saving to the river steam interests, as well as to the railroads of Mobile, of Louisville, of Cincinnati, of St. Louis, of Cairo, and of Chicago.

THROUGH RAIL BETWEEN NEW ORLEANS AND NEW YORK.

The original theory that railroads were chiefly profitable for the transportation of passengers, has yielded to the experience that

they can effect the movement of freights on terms far more favorable than had been deemed possible. A railroad having been constructed and organized for business, should be fully and constantly employed. Every moment it is idle is a loss; and provided the trains can be filled with through, in addition to way, freight, any rate for such through freight covering the mere cost of traction, is an addition to the revenue which cannot be disregarded. The new law of commerce, which has made speed and certainty in transportation, of more importance than a slight saving in freights, has added to the demand for steam on land as well as on water. Time guaranteed, now enters so much into the ability to control the market price and negotiate on short bills, that immense values are now moved from one extremity of the Union to another to an extent not foreseen by the most sanguine advocate of the railroad. We were startled by the statement that more than 6,000,000 tons were last year moved between the Eastern ports and the Western interior by railroads and canals. Undoubtedly this tonnage comprised almost the entire importation of foreign merchandise for the interior, which could not be entrusted to the cheaper but more uncertain waterways of the Mississippi and its tributaries. The obstacles to the receipt and distribution by this route must and will be readily removed, and then a fair share of the representative returns of our valuable exportation will be received. But if the vast movement to which we have referred can be conducted by means of the cross routes, between the West and the Eastern Atlantic ports, why may not the same principle apply to the intercourse between the Eastern and Southern ports? If freights may be moved from St. Louis 1,200 miles to New York by rail; if Cincinnati exports by more than seven hundred miles of rail, why should not St. Louis, Cincinnati, Chicago and New Orleans communicate by even a less average length of railroad? While this longitudinal line of trade along the Mississippi Valley can obviously compete with the coast route, evidences arise that the line of rail traversing the territory parallel with the eastern Atlantic coast, crossing diagonally the Cumberland, Alleghany and Blue Ridge, with the numerous large streams which intervene, can carry freights in competition with the coast navigation. For this there are two chief reasons. 1. The lines of railroad directed to the Gulf ports bring down during one season

the agricultural harvests of the interior. These freight trains go back almost empty; hence they can carry through freight back almost as ballast. 2. The risk of loss by land is so small that the bill of lading is the only insurance taken by shippers. So effectual has been the influence of these causes, added to others of a general nature, as before stated, that the Mobile and Ohio Railroad, in connection with the Illinois Central, carries back freight at incredibly low figures, while the New Orleans and Jackson Railroad, in connection with the chain of roads passing through Kentucky and Tennessee, might boldly compete with the coast steamers for cotton one way and merchandise the other.

REMOVAL OF OBSTRUCTIONS TO NAVIGATION.

As almost the whole success of the theory laid down in this paper will depend upon the best facilities of navigation, it will become necessary that the American States interested, should bring their influence to bear on Congress to secure the removal, at national cost and under national superintendence, of the obstructions at the Balize, as well as at the various falls which interrupt the trade of the upper country on the Mississippi, the Missouri, the Ohio, and the Tennessee. We are aware that the same principle involves the removal of the impediments to the St. Lawrence outlet. To this we have no objection, though it is not our special interest or duty to discuss the means by which it may be done. But the Balize outlet controls the trade between the river and the lakes, and the south seas. It is now reduced to a depth of about two and a half fathoms, while it requires a depth of from three and a half to four fathoms to conduct the Western trade. Congress may be required to instruct the Engineer Department to make surveys and determine the amount and character of work to be done. It may decide between the three modes of improvement now proposed. 1. The dredge boat. 2. The concentration of current by caissons or jetties. 3. The canalization below Fort St. Philip. Whatever plans may be recommended for adoption, Congress should at once appropriate money enough for the purpose. And in order that the Western States may see what strength they may bring to bear on this proposition and on that of which we shall treat subsequently—the establishment of steam lines to the tropics—we will estimate the representative and electoral power of the Northwest, as well as that of the South. It

may be remarked, that in changing the former construction put upon the Federal Constitution as a compact of States, the nation has decided to include the power of constructing national works, on national account, among the undoubted prerogatives—as we suppose they may now be called—of the Federal Government. At all events, the representation of the Southern States has fallen into the hands of members who adopt this rule of construction. Their co-operation in favor of all works of national character may therefore be safely calculated on.

REMOVAL OF POLITICAL OBSTACLES.

We may assume the representatives of the States which we have classified at about an hundred and ten members of the House of Representatives, while their Senatorial representation will be, under the next census, more than half that of the Union. What, then, will prevent this vast power from taking control of the Federal Government? The Southern States have lost participation in the policy of the government. Their doctrine that the government was formed by compact among the States has been annulled by the war. The rule of constitutional construction is now based on the principle of universal human equality. Every human integer is the equal of any other, according to the creed of the dominant party. Why, then, should the vast West pause in the application of this doctrine? We have always regarded the restrictive condition on slave representation, and the equal representation of small and large States in the Senate, as proofs of a treaty and a compact between the States. If we were mistaken, why should not the present principle of numerical representation be carried into uniform effect? If a freedman in Alabama is, in theory, the equal of a white man, how is it that a negro in New Jersey, or Rhode Island, is equal in power of Senatorial action to three white men in Indiana? There is no objection to a Senate as a revisory body. This duplicate legislative action is taken by almost every city and State in the United States, as a precaution to hasty, or unwise action; but then the Senatorial Districts of the States are always based upon an actual or approximate proportion of numbers. Under the new dispensation, the same rule should be applied in Federal representation. If one hundred thousand human integers, white, black, or parti-colored, are entitled to a representation in the House of Re-

presentatives, then every five hundred thousand human integers should be entitled to a Senator. Otherwise the grand principle of human equality is a sham, and a break down. Otherwise a freedman emigrating from Alabama to Connecticut thereby acquires an increase of senatorial power, while the inhabitant of Connecticut who emigrates to Alabama experiences a loss of senatorial power in the same proportion. How can this be called universal equality or manhood suffrage? The freedman moving north bebecomes an autocrat, because he enters a senatorial oligarchy; the white immigrant who takes his place becomes his political inferior. Is this personal equality? Eleven Eastern States have one-tenth of the numerical power of the House. They have one-fourth of the senatorial power. As a matter of compact between States this would be right, because it was so nominated in the bond; as a matter of justice under a rule of universal equality of all human integers before the law, it is illogical. If the States are "counties in the Union," then are these preferred States rotten boroughs. *Cessante ratione, cessat lex.* We cite this argument to show that if the West cannot, under the present basis of representation, carry out a commercial policy satisfactory to itself, the result of the next census will demonstrate its ability to make and unmake Presidents, to dictate a foreign and domestic policy, and to enact, or repeal laws. If any special interest should stand in the way, it will be overthrown. For the Southern people there is this, among other encouragements, to maintain the Union. The majority differs from any other dynasty. It is a dissolving despotism. It is not hereditary nor perpetual. The oppressor who strides in the van of the majority to-day may be to-morrow a straggler, or even a guarded prisoner in the rear. With new issues, come new organizations, and in the recast of political power there is no reason that Southern men may not be honorably among those who represent the interests and wield the power of the nation. We look upon the results involved in national progress and expansion as of a character to unite all men of common interests and opinions, without regard to lines of latitude. If the line of 36 degrees 30 minutes latitude has been obliterated as one equator of political and sectional interest, the line of 86 degrees 30 minutes longitude may be traced as another.

NEW ORLEANS AS AN ENTREPOT.

Among other elements indispensable to render the natural advantages of the Michigan and Mississippi route available is an entrepot worthy of the trade. This will be furnished by the city and port of New Orleans. The first site of French settlement was at Biloxi, a point on the mainland of the Mississippi Sound. It was found inconvenient for commerce, and the capital of Louisiana was removed to the banks of the Mississippi river. The natural advantages of the position made it commercially impregnable. It was the only suitable ground for the transhipment of Western commerce. It was as high up the river as sail vessels could afford to labor against the current. New Orleans could be flanked by no outlet, after the shallow pass of Manchac was closed. No product would bear transportation across from the Valley of the Mississippi, and its tributaries, to the Eastern Atlantic ports by any natural outlet, nor by any artificial means of transportation then known. So complete was the almost military position by which New Orleans commanded the whole interior commerce, that Galvez, the Spanish Governor, by an order suspending the right of deposit at New Orleans, completely cut off the whole communication between the American settlements of the West and the outer world. These facts are sufficient to account for the later character of commerce at New Orleans. The theory on which the city was founded was a compulsory transit and transfer of the whole interior commerce. The site of New Orleans was a natural monopoly. Can we wonder, then, that there should have been complaints of the charges made by this then inevitable agency? The construction of artificial ways which carried last year six million tons, with the principal passenger, treasure, and mail movements between the Western interior and the East has broken the blockade. New Orleans is now prepared to fall back upon her natural facilities of transportation and transfer. An examination of the port and factorage charges will show that if they are not as reasonable as elsewhere, the competition of other routes and markets will reduce them. Some of the chief charges on the trade of New Orleans are such as the West can remove, and the West will be responsible if it does not remove them. One charge is occasioned by the want of a sufficient depth of water on the bar adequate to the bulky trade of the West. It is represented by

pilotage, and an occasional towage over the bar, as also by insurance, some part of which is due to the dangers of this outlet. It may be remarked that something like twenty per cent. of the charges on our river navigation is occasioned by the towage of sail vessels. This charge may be reduced, but can only be superseded, by the employment of steam. While, however, treating of the advantages of New Orleans as an entrepot, it will be proper to mention that from the time the Western grain crop is harvested, and its animal food ready for exportation, the Mississippi river below Cairo offers a route to the world markets free from ice. In conducting the tropical trade New Orleans possesses another advantage. A large proportion of its population are French and Spanish Creoles. Among them are merchants of the highest intelligence and integrity, having the most intimate associations with the merchants of Europe as well as with those of the ports of Spanish America. These merchants speak the languages of the Spanish and French American States. These merchants, with their connections, may be at once interested in this commerce, and our friends of the Northwest may rely that their business interests will not suffer in the hands of such men as De Lizardi, Avet, Avendano, DeFuentes & Co., Villavasso, Zarega, Laniata & Co., DaSilva, Viosca, Salvador, Fernandez & Co., and other representatives of those houses which formerly conducted the trade between New Orleans and Spanish America, and Southern Europe.

Speaking of improving "*Le Carre de ville,*" or the French part of New Orleans, the New Orleans *Bee* of May 9th says :

"Dans la partie qui avoisine le fleuve, se logeraient le negociants qui auront a trafiquer avec les Antilles, le Mexique, l'Amerique Centrale et l'Amerique du Sud, lorsque les problemes politiques et scientifiques enumeres plus haut, auront recu une solution."

This solution is, in our opinion, nothing more than removing the obstacles and opening the trade of which we have spoken. It can be done at once, Grant *consule,* as well as at any other time, and will solve the very obstacles which the *Bee* thinks prevent the improvement of the *Carre de ville.*

STEAM LINES FROM NEW ORLEANS TO THE TROPICAL PORTS.

We have noticed incidentally the decline of American commerce with the South Seas. We have shown that the proportion of Ameri

can to European commerce with the same regions is almost insignificant. It is the concurrent, and undisputed opinion of all interested merchants that a chief cause of the difference is the English and French steam lines which traverse these seas and touch at these ports with regularity. *It is the absence of any similar system established by the United States. This should be remedied. In order to enable the Western interior to participate fully in the trade of which we write, their Representatives in Congress should unite with those from the South and require of Congress at least as great facilities for organizing this commerce as is given to New York. If Congress gives to that port a postal subvention to run lines of steamers to Vera Cruz, Panama, and Rio Janeiro—if to California is given the appropriation to run a line to China, why should not New Orleans, as the common outport of the Western interior, receive the same advantages? Until the West and South shall concentrate their political power, and commercial patronage in requiring this measure of justice and wisdom on the part of the Government, these great elements of popular comfort and industrial prosperity are dissonant and distant from each other. They are part of one great system, and should be placed in harmonious association.

REFORM OF OUR COMMERCIAL DIPLOMACY NECESSARY.

The political theories of the South have been based chiefly upon agriculture as a single industry. To other sections were left the duty of producing the manufactures and conducting the commerce of the country. The West, raising plantation supplies for the South, had, as we have stated, little direct commercial communication with foreign countries. The North and East have had almost the exclusive control of that department of government which directed commerce. The State Department was rarely given to a Southern man, while the West has had but three, Mr. Clay, Mr. Livingston, and Gen. Cass. It is of great importance to the commercial inter-

*There are one hundred and sixty-four lines, or about 3,200 steamers running from England to foreign countries. "The influence of these numerous lines of steamships"—says Mr. F. H. Morse, United States Consul at London—"starting out from this common centre to all points of the compass, and running from the short trips across the English channel to the most distant voyages through all known seas, several of them mail lines, and helped on by Government subsidies, on the trade and commerce of this country, can easily be understood." Report 1867.

ests of this great exporter and consumer of commercial products, that it should have the direction of that department in turn, and if the present administration has been disappointed in securing the services of a Western Secretary of State, that section should expect the appointment of Ministers and Consuls to the foreign States of our southern continent.

A continental policy has become necessary. The Monroe Doctrine never meant anything. It was a neutral policy on our part, and was evaded by all other parties to its execution. One Imperial Government was established in Brazil, another in Hayti. Monarchical governments held colonies in Canada, Cuba, Jamaica, and on the main land of Central and South America. Under the name of Republics, Santa Anna, Dr. Francia, Lopez, Rosa, have exercised all the powers of unlimited monarchy. What, then, does the Monroe Doctrine mean? It has never been enforced by active measures, and never can be. It will allow Spain to revive the rule of Ferdinand VII. It will see that government reinstate a despotism over a people who claim the common right to be free. The Government of Spain may glut the garrote, and reduce the people of Cuba to penury by confiscation, and yet it will not transcend the Monroe Doctrine.

We have thus sketched the inducements and material for the organization of an immense commerce between the grand and growing interior of the Union and the tropics. We have no hesitation in saying that to attain this great object the cordial co operation of both the Southern and Western sections will be necessary. It will be indispensable to adopt a positive continental policy. The Government of the United States must demand the literal fulfilment of the covenant to place its commerce with Mexico, Cuba, and all States south of them, "on the footing of the most favored nation." There should be no more co-protectorates. The United States should acquire sole control of the Isthmian ways of Chiriqui, Panama, and Darien. The water-way between the two oceans should be cut at our national cost, and controlled by our National Government. If there be Western statesmen in the National Legislature whose hearts and minds are sufficiently large and liberal to comprehend this continental policy, this harmony of sections, and the good of a whole people, they should take an early and an active position

upon the subject. They should never abate their exertions until they shall have secured a free water-way to the markets of the world. By this means the Northwest can communicate with the South Seas by way of the Michigan and Mississippi route to the Gulf of Mexico. By this commerce the interests of the West and South will be united, the harmonies of the Union restored, and the Republic itself made perpetual.

ART. II.—FIRST COLONIAL SETTLEMENT IN LOUISIANA.

When Governor Iberville, who commanded the expedition from La Rochelle in 1698, had sailed from Cape Francois, in the Island of St. Domingo, for the mouth of the Mississippi, he made land with his fleet on the 25th January, 1699, at the Island of Santa Rose, before the Bay of Pensacola, then in the possession of the Spaniards. The reason for his keeping so much toward the east in his course was to avoid the fate of his precursor, Robert LaSalle, who, having missed the efflux of the Mississippi, kept sailing, and as they thought, drifting by the land eddy, or counter current in the Mexican Gulf, on the Texas shore towards the Bay of St. Bernard. The mouth of the great river was not then easily found, and in order to make sure of their entry, Iberville took precise information from the resident fishermen and pilots of the Spanish garrison in Pennsacola, and also provided himself with Indian River guides, the faithful Bayagoulas, who always afterwards accompanied the French lake, and river expeditions. In this manner, he and his brother Bienville, in two light draft vessels, called barques, after having steered from Ship Island toward the Chandeleurs, found and made their entry into the passes of the Mississippi. So little were they assured that they had not again missed the great river in search of which they were, that they would not even believe, in the first instance, the assurance of Father Anastase, who had been in the first expedition of LaSalle, when this adventurer descended this river towards the Gulf and reconnoitred the open sea from its passes. Father Anastase told them that the color of the water, and the abundant drift wood, and logs on the sides of the passes were a sure guarantee of their being in the very outlet of the stream, but that the magnitude of the

Father of Waters would only be perceptible after they had ascended, or come to the fully reunited stream. They received the same assurance from the River Indian guides, although these latter confessed that very rarely their navigators would take the route by the sea or the mouths of the river to go to the Florida coast and Indian villages. Having ascended the river towards the Bayagoula village, situated above the Lafourche, and in the present parish of Iberville, the French explorers became satisfied of their having fully attained their object, that is to say, having discovered from the seaside the great river, so much spoken of in the European world.

When Iberville and Bienville thus sailed up the Mississippi, the whole of the delta shore, with the exception of a few select places, was covered with the mass of the early spring floodings. Consequently, they had no idea of planting the first settlement on the river shore, and they decided to form their principal establishment near deep sea water, somewhere on the coast of West Florida. Hence, in accordance with Iberville's orders, the ground at Biloxi was selected for the erection of a fort, and his other brother, Savol, appointed its commandant. The harbor ship stations were alternately at Dauphin Island, in front of Mobile Bay, Ship Island, and even Cat Island, according as the ever varying depth of the Gulf waters would be found most convenient. Before his departure for France, however, Iberville left orders for his brother Bienville to take some Indian River guides, and, by the way of the lakes Borgne and Pontchartrain, to sail to the Mississippi, upon the shores of which he was to select some high ground, above the annual inundation, and there erect a fort, or fortifications, for the defence of the river against possible foreign intruders. Bienville took the route by Bayou St. John, and his Indian guides pointed out to him the strip of high land below the English turn, then occupied by a small tribe of Indians, Ouachas, after which name a lake towards the Barataria is still called upon our modern charts. Here, or in its neighborhood, a fort was built, and garrisoned by some eight or ten men, with a couple of light pieces of artillery. For want of soldiers, even this small force was afterwards withdrawn, and the works, no doubt, abandoned. As for the improvements made on the coast of Biloxi, Mobile Bay, and Dauphin Island, these continued for a

number of years, with, however, little success. Hurricanes, high floods, extreme cold winters, and the destruction of the harbors, made it desirable, after the experience of near twenty years, that the main station of the colonial business should be transferred to the shores of the Mississippi, where the vessels would be much better sheltered from the violence of the wind and waves than upon the open roads along the Gulf islands. The drawbacks to this transfer were the annual overflowings of the delta shores, which had to be dyked to keep the ground dry and habitable. Bienville, who had already observed the partial success of the agricultural enterprises of some Canadian farmers on the crests of the Gentilly and Metairie ridges, as well as the Tchoupitoulas point, (now Carrollton,) urged the change of the colonial settlement upon the French authorities, and in anticipation of the success of his application, in 1717, February of that year, as one writer says, he ordered the clearing of the ground on the river shore by some fifty pioneer pick-axe and spadesmen, followed by carpenters for the erection of houses and magazines. The first commandant of the new town of New Orleans was Major Paillou. Governor Bienville himself, most of the time from that date, made his residence there, when not called away by official business to either Biloxi or Mobile. But the permanent and official transfer of the colonial administration took place towards 1723, after the visit of Father Charlevoix, who, in 1721-22, gives but a very indifferent description of the then existing state of affairs. He says that one may imagine the looks of a place where some two hundred people of all sorts are seen under canvas tents, temporary shanties, and huts, all filled with the most sanguine expectations of the grand future of the metropolis which they were founding there, in the midst of half finished houses, stores, among stumps of trees, and heaps of materials of all sorts and sizes. He particularly laments that so little regard should have been showed towards religion as to have assigned one half only of an indifferent sort of a warehouse for the erection of an altar and the performance of divine service, whilst in the other half provisions, liquors, and the stores were kept for the use of the garrison, sailors, and colonists. Mention is made by other writers that there was great rejoicing among the first residents of New Orleans in 1722 or 1724, when the royal vessels, which before that time discharged their cargoes at

Dauphin Island and Biloxi, proceeded directly from France up the river and unloaded upon the levee, (then not yet made) in front of the public palace, (now Jackson Square,) and thus proved that by means of some signals at the Balize, the entrance of the river henceforth could be made with facility and ease. One of the first vessels had the name of the Adventurer, *l'Aventurier*, with a full cargo of victuals, clothing, etc. Others followed in course of time with numerous immigrants and colonists, soldiers, sailors, Germans, French, Sweedes, and Canadians. C. D.

ART. III.—THE BULK GRAIN TRADE.

COMPILED FROM THE CHICAGO RAILWAY REVIEW.

Railroad Versus Canal—Chicago and St. Louis—New York and the Grain Trade.

[From the New York Times.]

The shippers and grain dealers of the Western cities are responding with a heartiness which their interests will explain to the views and propositions of a delegation from this city representing its warehouses and elevating business, and *looking to radical changes in the system and mode of consignment and sale of Western products in this market.*

The merchants who have undertaken the reform propose that on the arrival of grain from the West it shall be taken at once to warehouses—that the warehouse, in fact, shall be the distributing point instead of the canal boat. The cost of storage is to be cut down one-half. A further and more important proposition—and the one which calls forth the most positive antagonism here—is, that the credit system be abolished; that the purchaser, on the spot, must assume the risks now borne by the distant consignor.

The West is not slow to appreciate the contemplated changes. The Buffalo Board of Trade indorsed them at the outset. Chicago and other ports have spoken. The Milwaukee resolutions call for reform in the New York grain trade and a reduction in the charges on grain passing through Buffalo, and deprecate as oppressive and unwise the toll levied by the State of New York on produce passing through its canals. These are undoubtly the views of all the Western lake ports, and they are are in harmony with the general interests of the great grain growing States.

The Milwaukee resolutions faintly shadow forth the possible result of persistence in the present policy on the part of the State. Unless canal transportation be cheapened, and made less tardy and hazardons, Westerns trade will be diverted to other routes. First, to the projected enlargement of the Canadian canals; next to the energy with which the advantages of St. Louis are pushed as the great distributing centre of the Mississippi Valley, and the connection growing up between the grain interest of that city and New Orleans, where elevators have been built, and whence steamships are to sail for Europe. *Neither of these routes are at present formidable.* 1. St. Louis lacks the aggregate enterprise which has made Chicago what it is; and the Canadian Government has dozed so long over canal improvements that the St, Lawrence route is not soon to be available.

It would be unwise, however, to assume that the commercial supremacy of New York may safely defy the competition of routes leading to other ports. Nothing could be more suicidal than obstinate indifference to the protests of Chicago, Milwaukee and St. Louis, in matters largely subject to their influence.

ST. LOUIS AND GRAIN EXPORTS.

[From the Chicago Tribune.]

The project set on foot in St. Louis a few days ago to buy all the grain in the Northwest with $100,000 and send it down the Mississippi to New Orleans, and thence to Liverpool, will be put in operation about the time the Niagara Falls Canal is built, the Erie Canal enlarged, and the trunk lines of railroad eastward provided with steel rails, whereby the cost of transportation on the natural route of commerce will be reduced below the contemplated rates on the Mississippi river. There is one fact overlooked by the St. Louis wise-acres, which will cut an important figure in the business, and that is the matter of return freights. The South could not carry on a direct trade with Europe before the war even with her monopoly product, cotton, because vessels engaged in that trade could not obtain return cargoes. From whatever Southern port they might load they were compelled on the return voyage to load for New York, and it was found more profitable on the whole to send the cotton to New York, to be reshipped to Europe, than to ship it direct from New Orleans, Savannah, or Charleston. The same laws will govern now.

Nevertheless, it behooves us to assertain whether we have not the means to retain our supremacy in the grain trade without relying wholly upon the advantages which nature, and custom, have given us. 2. Obviously the thing to be done is to lessen the cost of conveying the grain from the producer to the consumer. If a person unacquainted with the business watch the course of a bushel of wheat from the prairie farm to Liverpool, he will be astonished at the number of hands it passes through before it reaches the European market. It is first bought from the farmer by a collector; second, bought from the collector by shipper at the railroad station; third, inspected into elevator; fourth, sold by commission merchant on 'Change; fifth, bought by shipper; sixth, inspected out of elevator; seventh, bought by commission merchant in New York; eighth, bought by shipper; ninth, inspected; tenth, sold on 'Change at Liverpool. Here are ten middlemen, each of whom takes a toll from the grist. All this is independent of the charges for carriage, insurance, storage in elevator, tolls on canal, wharfage and interest on capital while the grain is in transit.

The aggregate of those charges is simply enormous, and there is no doubt that they could be reduced without loss to the shipper, while the gain to producer and consumer would be very great.

OF CHICAGO AND ST. LOUIS.

[From the Chicago Times' Financial Article.]

Some of our St. Louis neighbors are endeavoring to create the impression that that city has great advantages in the way of importing foreign goods, because ocean freights between Liverpool and New York are sometimes higher than between Liverpool and New Orleans. It is sometimes true that freights are lower from Liverpool to New Orleans than to New York. During that season of the year when the cotton of the South is moving, and the grain of the North is not moving, a large number of vessels sail from Liverpool to New Orleans, and as freights to that place are very scarce, these vessels are obliged to carry them very low. Sometimes freights have been carried from Liverpool to New Orleans in ballast, and no charge made, save for handling. These vessels must have some freight as as ballast, and if freight to New York is ten shilling, and from New Orleans to New York is four, they must take freight from Liverpool for five shillings in order to make it an object for the New York parties to send their freight by the round-about way of New Orleans. But the advantage which St. Louis enjoys over Chicago is so slight, even on importing goods via New Orleans, that it never enters into prices at all. The Chicago merchant, importing via New Orleans, delivers his freight to the Illinois Central railroad at Cairo, and it is transported to Chicago for an average price of 50c. per ton more than it would cost to have it taken to St. Louis, or one-fortieth of a cent per lb, a sum so insignificant that our Chicago merchants have not yet learned how to add it to prices. Besides, this trifling sum is oftentimes saved, in the relative cost, and amount of cartage in St. Louis and Chicago, nearly one-half the goods brought here being unloaded direct into warehouse, without any expense for cartage; whereas, in St, Louis

cartage cannot be escaped. But it is only about two months in a year that the freights to New Orleans are lower than to New York, and during the remainder of the year they are so high that no importations can profitably be made via New Orleans. When money cannot be made by importing via New Orleans, our merchants patronize the steamship lines from Liverpool to Quebec, bringing the goods from thence by water and rail, to Chicago, where they frequently arrive in less than a month's time from the day of their shipment at Liverpool. It takes from four to five months via New Orleans for goods to reach St. Louis, and the interest our merchants save by this more direct route, gives them a great advantage over the merchants of St. Louis.

MUTUAL RELATIONS OF EAST AND WEST.

[From the New York World.]

The East requires cheap food in order that mechanics can accept lower wages. The West requires such means of marketing its products that only a fair proportion of the value thereof shall be absorbed in risk and expense; leaving to her farmers, the means of purchasing the manufactures of the East. The West has broad fields suitable for the growth of great quantities of food. The East has a teeming population, abundant monetary facilities, and other aids to the prosecution of manufactures.

St. Louis has attempted to improve the facilities for the transhipment of grain at New Orleans. Floating elevators have been erected there; barges have been employed to transport grain down the Mississippi "in bulk;" and with the minor measures that have been adopted, there is apparently no reason why complete success should not attend the effort. But the reality proves to be far short of the anticipation, and there are many causes for the partial failure. The Liverpool demand for breadstuffs is exceeding fitful; at time there are no buyers for that market, except at a ruinous decline; and New Orleans has no large local demand or facilities for storing, with which to tide over the dull period with shippers. Besides that port is one of the most expensive in the world.

Until within a year or two, we had little practical knowledge of the capacity of railroads to maintain our supplies of grain. Our great trunk roads have contented themselves with the transportation of merchandise that could be easily handled. Grain they have not attempted to bring us, except in small lots in bags, when the emergency was pressing. But there has been rapid development of late in this particular Last winter, when our stock of corn became much reduced, speculators were astonished by the work of the Erie Railway in delivering from thirty to forty thousand bushels per day, by which prices in this market were reduced twenty-five cents per bushel, and our dealers enabled to maintain their trade. We have this winter an extension of this work. With supplies of Southern corn in coastwise schooners, and but little export demand, we have not needed that grain so much as wheat, in which we have had a steady export. We had, recently, receipts of wheat by rail to the extent of twenty thousand bushels per day; affording great relief to the Western markets, Chicago, in particular, and greatly stimulating our own trade, and affording employment to our shipping. This wheat came forward at cheaper rates than the average of water transportation by lake and canal. There was some wastage, which may be entirely overcome or greatly reduced, but even this was made good by the saving of time. For several years, scarcely any flour has come forward by canal; the time occupied in transportation by this means being greatly adverse to the interests of the millers in making their drafts upon their consignees.

The most immediate and practical question, therefore, in connection with the present state of the subject are these: Can we have the rapidity of railroad transportation with the cheapness of water carriage? Are the recent low rates by rail—resulting, as they did, from heated rivalry—sufficiently remunerating to be established? Do we not need railroads built especially for freight? With a road given up entirely to freight, and trains running a uniform speed, they need not be more than half an hour apart.

The lesson which the present state of matters teaches St. Louis, is this: *If she would compete with Chicago in the struggle for precedence among the cities of the West, she must improve her railway communication with the Atlantic seaboard.* Chicago may send her great staples to New York by rail, in a few day's time, cheaper than

St. Louis can by the long, dilatory, and toilsome New Orleans route. With discounts at so high a rate, the rapidity with which Chicago can get forward her consignments and realize upon them, is a controlling consideration. Therefore, to extend, increase, and cheapen railroad transportation, are the great objects to be arrived at; all others are mere diversions.

We cannot pass these extracts without comment, that New York, Chicago, Milwaukee and Buffalo, should so far recognize the competition of New Orleans as an outlet as to take means to "lessen the cost of conveying the grain from the producer to the consumer," is a concession of prime importance. This of itself should induce the Western farmer to open the Mississippi and organize the grain trade by this route, if for nothing else but to hold it as a means of escape from the exactions of Eastern monopoly. Farmers of the West, observe this admission. It now comes out, about the collector, the shipper, the factor, the shipper No. 2, inspector No. 2 at Chicago, inspectors, factors and shippers No. 3 at New York, and No. 4 at Liverpool—that is, there are ten profits between the producer and consumer; there are ten tolls taken from the grist, and this independent of freights and other charges. This confession is the first effect of the energetic movements of St. Louis and of a single elevator at New Orleans. This estimate of current charges does not include the dead rent which grain pays by boarding all winter in an elevator, shrinking in its vexation at the rise and fall of markets from which it is excluded by the ice blockade, nor the advance of Eastern bound freights or storage from much of which it will be free on the Mississippi route. So New Orleans and St. Louis may claim to have rendered service, if they go no further than induce a reform and reduction of charges, thus admitted to be excessive. It is recorded of a very uncompromising candidate that he told his competitor, "Captain C., I may not *beat* you, but I'll make you a d—d sight better member of Congress than you ever were before."

The Chicago *Times* was evidently put upon the defence of the Northwestern routes so suddenly as not to have got his weapons in good order. It assumes, strangely enough, that European goods, consigned West, cannot be imported through New Orleans. What are the objections stated? 1. That it is only about two months in the year that freights to New Orleans are lower than to New York. 2. That cartage must be paid on the Mississippi route, when one-half the goods imported into Chicago are "unloaded direct into warehouse, without any expense for cartage." 3. That goods frequently arrive in Chicago direct from Liverpool, *via* Quebec, in less than a month's time from the day of their shipment from Liverpool, while it takes from four to five months *via* New Orleans for goods to reach St. Louis." 1. We admit that it is only during the season that our out-freights of cotton abound that our import freights are low. This is one reason for wishing to control the Western trade, which would prolong these low import freights. It is this incident to the grain trade that makes it especially desirable. It will give us a steady all-year business. 2. The cartage, with other kindred charges of transfer, are now imposed at the Missis-

sippi river ports, but it does not follow that these ports will not have the same facilities with Chicago for receiving, delivering and forwarding. These are reforms upon which all these towns are intent, and with the up-river cities made ports of entry, and regulations allowing the dispatch of Western consignments on invoice or in bond, we do not see why goods may not be unloaded direct into warehouse at New Orleans, or shipped on through bills, through St. Louis or Cincinnati, as well as any other cities. There is certainly no act of Congress forbidding this to be done. 3. Goods frequently arrive in Chicago from Liverpool on guaranteed time in under thirty days. It is plain that when the St. Lawrence is open, the voyage by the Anti-costi Island route triangulates any other between these two terminal points; but it by no means follows that the route between Liverpool and St. Louis, *via* New Orleans, will occupy from four to five months. The run of Ashbridge, Smith & Co.'s steamers is now about eighteen days from Liverpool to New Orleans; from New Orleans to St. Louis it is six to seven. If rail from New Orleans to St. Louis be employed, it will only add about thirty-six hours to the Liverpool voyage. We do not state this to insist on a competition of time, but to show that the voyage does not necessarily occupy four or five months between Liverpool and St. Louis, any more than that the voyage between Liverpool and Chicago is not usually accomplished within thirty days. With respect to the transportation of heavy bulk freights, which can bear the difference in time between these routes, the Mississippi can under-carry any competing route. The immigrant passenger trade is due to this route on the same reasoning, and because of the more favorable climate of the winter season, when immigrants can move to most advantage.

We are glad to see that the unfair imputation of climatic injury to grain is not urged against the Mississippi. The experimental testimony of practical men is demonstrated that bulk grain may be moved and transferred on the route without any injurious consequence. We are content, however, to leave this question to the test which cannot deceive the Western public. We feel very confident of the decision.—[Ed. Review.

ART. IV.—BRITISH HONDURAS.

ITS HISTORY, TRADE AND NATURAL RESOURCES.

BY MR. CHIEF JUSTICE TEMPLE.

(Continued.)

An impression has latterly existed that almost all the mahogany in British Honduras has been cut. This, however, is a mistake. There is sufficient wood in the country, both on granted and ungranted land, to supply the European, as well as the American

markets, for many years to come. A considerable quantity of mahogany has been, within the last few years, cut in the State of Honduras and on the Mosquito shore; but the mahogany works in the former country have been almost entirely abandoned, partly on account of the wood which is accessible being nearly all cut, and partly on account of the extra freight and insurance which are required when vessels are loaded on the coast. From the Mosquito shore very few cargoes have been lately sent, for the wood which grows there, although it is very large, is of an inferior quality. The mahogany tree requires a rich, dry soil. The best mahogany is found to the north of the river Belize. In consequence of the nature of the soil in that district, in which there is a great quantity of lime-stone, the mahogany is longer in coming to maturity, but when fully grown, it is of a harder and firmer texture than that which is found in the southern portion of the settlement. There is no wood more durable than mahogany, and none which is so generally useful. It is stated in a little book called the "Mahogany Tree," that furniture is being made in the royal dockyards out of the beautiful mahogany found in breaking up the old line-of-battle ship Gibraltar, which was built in Havana one hundred years ago. The English and French governments purchase yearly a large amount of mahogany for their dockyards. During the last year the British Government required twelve thousand tons, paying £10 17s. 6d. per ton. The French Government took three thousand tons at the same price. The royal yacht is built principally of Honduras mahogany. Private ship-builders are, however, reluctant to make use of mahogany for their vessels, as Lloyd's committee exclude all ships of twelve years' standing, in which the floors, futtocks, top timber, keelson, stem and sternposts, transoms, knight-heads, hawse-timbers, apron, and dead-wood are made of mahogany. Mahogany vessels of ten years' standing they admit, but even these, I am informed, it is their intention very shortly to exclude. The reason which they assign is that mahogany differs very much in quality, and it is impossible to know when a ship is built of good or bad wood. But this difference in quality depends entirely upon the district in which it has grown. If they restricted the shipbuilders to the northern wood, they might admit vessels of twelve years' standing without any risk. In the year 1846, the Honduras merchants presented a memorial to Lloyd's

committee praying for a removal of the existing limitations to the general use of mahogany in the building of vessels of the highest class. Attached to this memorial were numerous certificates, from persons well qualified to give an opinion upon the subject, speaking in the highest terms of mahogany for shipbuilding. Captain E. Chappell, R. N., Secretary to the Royal Mail Steam Packet Company, says: "Has seen Gibraltar, eighty gun ship, which was broken up at Pembroke. This ship is *entirely of mahogany*; captured of the Spaniards in 1780; *all timbers sound as when put into her.* Tables for the whole navy made of the timbers of the Gibraltar. The steamer Forth, built by Mr. Menzils, of Leith, has as much mahogany put into her as could be obtained. The use of mahogany ought to be the *rule*, and not the exception." The qualities of mahogany which render it peculiarly fitted for shipbuilding are its lightness and buoyancy, its freedom from dry rot, and its non liability to shrink or warp. The price of mahogany varies according to the size, figure, and quality of the wood. One tree from the northern district, which was cut into three logs, sold for £1,800, or 10s. per superficial foot of one inch. Southern wood, of a small size and inferior quality, has been sold at 3½d. a foot. The present prices in London for small sized plain mahogany are from 5d. to 6d. per foot; for large, of good quality and figured, from 9d. to 1s. 6d.

The yearly average quantity of mahogany exported from Honduras during the last ten years is about eight millions of feet, equal to twenty thousand tons, or two hundred thousand tons in the whole ten years, requiring one hundred and sixty thousand trees.

The Honduras logwood trade has greatly increased of late years, owing to the dye being much superior to the dye of the logwood which is cut in Jamaica and St. Domingo. The price of the former is forty per cent. higher than that of the latter. The Honduras wood sells for £7 per ton, and the Jamaica and St. Domingo wood for £5 per ton; this is a very different price from that which it sold for in Dampier's days. He tells us that it then sold for £100 per ton, which, allowing for the difference in money, would be equal to £200 at the present day. The Jamaica and St. Domingo wood is used in the dyeing of carpets and other coarse cloths, but the Honduras wood is used in dyeing all kinds of woollen, cotton, and silk fabrics. A considerable quantity of Honduras logwood is shipped

yearly to Oporto, whence it comes to us as prime port wine, recommended by the faculty for its superior nutritious and astringent qualities. A large quantity of logwood is also exported to the United States. Captain Dampier thus describes the logwood trees :

"They are much like our white thorns in England, but generally a great deal bigger, the rind of the young growing branches is white and smooth, with some prickles shooting forth here and there, so that an Englishman, not knowing the difference, would take them for white thorns, but the body and the old branches are blackish, the rind rougher, with few or no prickles. The leaves are small and shaped like the common white thorn leaf, of a palish green. We always choose to cut the old, black rinded trees, for these have less sap, and require but little pains to chip or cut them. The sap is white and the heart red ; the heart is used much for dyeing, therefore we chip off all the white sap till we come to the heart, and then it is fit to be transported to Europe. After it has been chipped a little while, it turns black, and if it lies in the water it dyes it like ink, and sometimes it has been used to write with. Some trees are five or six feet in circumference, and these we can scarce cut into logs small enough for a man's burden without great labor, and therefore we are forced to blow them up. It is a very ponderous sort of wood, and burns very well, making a clear, strong fire, and very lasting. We always harden the steel of our fire-arms, when they are faulty, in a logwood fire if we can get it."

The population of Honduras has greatly increased of late years. When the war broke out in Yucatan, in 1848, between the Indians and Spanish inhabitants, or Mistetzos, as they are called, being a mixture of the Spanish and Indian, there was a great influx of both people into Honduras, where they came as to a city of refuge. There is much difficulty in taking a census of the population of Honduras. In 1848 it was supposed to amount to about fourteen thousand, but since that time I have no doubt the population has more than trebled. Belize contains a ranging population from five to eight thousand. At Christmas the town is always very full, for at that time the laborers come from the various mahogany works to receive their wages, if any be due to them, and to enter into contracts of service for the ensuing year. It is then that you see a class of men who, from their height, symmetry, and muscular de-

velopment, would form splendid models for a Hercules, or an Antæus. When these men are actively employed, it is curious to observe the play of their muscles, which rise and fall like the swelling of a sea in gentle motion. At Christmas there are pitpan races between the negroes and the Caribs. A pitpan is a long, flat-bottomed boat, deep and wide in the middle, but shallow at the ends, which are square. Some of them are fitted with a wooden awning, which can be removed at pleasure. It is made of one log of wood, which is sometimes mahogany and sometimes cedar. This kind of boat was, no doubt, used by the Indians previously to the discovery of America, and is, most probably, of very ancient origin. Bryan Edwards, in his "History of the West Indies," says that Bartholomew Columbus met one of them in passing through the Gulf of Honduras. It was eight feet in breadth, and in length equal to a Spanish galley. Over the middle was an awning composed of mats and palm tree leaves, underneath which were disposed the women and children. The pitpan race is a curious spectacle ; the enormous length of the boat, sometimes sixty feet, the great number of paddlers, with their bodies naked to the waist, and black and shining as polished ebony, their broad, brawney chests and muscular back and arms, their shrill, dissonant, ferocious cries, their wild gestures, sometimes plying the paddle with inconceivable vigor, which sends the canoe with the swiftness of an arrow through the water, sometimes hurling it into the air and dexterously catching it as it falls, and sometimes dashing up the spray, which, for a moment, makes them invisible, present altogether such an exhibition of savage nature as to cause the beholder, for an instant, to doubt whether the wild creatures he sees belong to the same species as himself. They are, however, very fond of music, which, it is said, "tames the savage beast." If you engage a party of them to paddle you up any of the rivers, they generally insist upon indulging you with a song, neither the air nor the words of which would, I am afraid, be duly appreciated at her Majesty's Theatre.

The imports and exports, and the inward and outward shipping of Honduras from the year 1824 to 1836, may be found in Mr. Montgomery Martin's book on the "Colonies of the British Empire," and that portion of his work may be depended upon, for his information was derived from returns furnished him by the Colonial Office. I

shall begin with the year 1846. The exports in that and the following year were as follows :

ARTICLES.	1846.	1847.
Mahogany	9,567,570 feet	6,502,777 feet
Cedar	4,139 feet	10,337 feet
Logwood	4,314¼ tons	3,222¼ tons
Fustic	19¼ tons	
Rosewood	1 ton, 37 pieces.	206¼ tons
Cochineal	5,565 seroons	5,684 seroons,
Indigo	387 seroons	611 seroons
Sarsaparilla	101,031 lbs	53,689 seroons
Hides	1,488	1,299
Tortoise shell	150 bbls.	45 lbs, 1 box
Cocoa-nuts	529,430	536,490
Specie	$276,496	
Preserved Turtle	49 cases	10 turtles
Plants	41 boxes	6 boxes
Gum	1 bag	
Lignumvitæ		10 tons
Cases of cigars		4
Tobacco		23 bales, 2 boxes.
Belly webwood		6 pieces
Santa Maria		6 pieces
Sappodilla		128 pieces in '48.

In the year 1848 the total value of the imports amounted to £166,611 19s. 5d., of which there came from Great Britain £110,851 7s. 9d.; from the West Indies, £402 6s. ; from the United States of America £53,660 15s. 2d.; from foreign States, £1,679 16s. 6d.

The total amount of the exports was £353,782 10s. These consisted of mahogany, 7,947,983 feet ; logwood, 4,332 tons ; rosewood, 23 tons ; hides, 1,775 ; tortoise shell, 659 pounds ; fustic, 10 tons ; braziletta, 15 tons ; cochineal, 6,182 seroons ; indigo, 419 seroons ; sarsaparilla, 23,250 pounds ; old copper, 7,993 pounds ; cocoa-nuts, 319,943 nuts ; specie and bullion, £65,840 4s.

In 1849 the total value of the imports was £237,861. The total amount of the exports was £301,888. The tonnage entered inwards in that year was 18,521 tons ; the outward tonnage was 18,626 tons. In 1850 the total amount of the imports was £196,554. The amount of the exports was £261,015. The amount of the tonnage entered inwards in 1850 was 28,748 tons, and outwards, 23,935 tons. In the year 1850 there was a decrease in comparison with the former year in cochineal amounting to £50,000, but there was an increase upon the mahogany of £16,000, and upon logwood of £6,000. In sarsaparilla there was a surprising increase. In 1848 the amount exported was 23,000 pounds, in 1849 160,000 pounds, and 1850, 432,000 pounds. The value of sarsaparilla in the Honduras market

is about 6d. per pound, but sarsaparilla, indigo, and cochineal are not the produce of British Honduras, but are sent from the Central American States. I shall speak more of those articles by and bye.

In 1851 there was a decrease in imports amounting to £87,707, and in 1852 there was a decrease of £99,840. The cause of this diminution is stated in the blue book for the latter year to have been the distressed condition of the Central American States. That may have been partly the reason, for the frequent dissensions which occur in those countries very materially impede the progress of trade and cultivation, but the principal cause was the fact of the Central American States getting their manufactured goods direct from Great Britain and Germany. Several years ago all the dry goods which were required in Guatemala were purchased in Belize, but latterly the principal houses in that State have found it to their advantage to have their goods sent direct from Europe, round Cape Horn to Estapa, on the Pacific. They are sometimes sent to Belize, where they are transhipped to Isabal, from which place they are carried to the city of Guatemala on the backs of mules. The latter route is very expensive and dilatory, and is attended with considerable risk. The charge is a dollar for every twenty-five pounds. A mule will carry three hundred pounds, so that one load costs twelve dollars, which is about £2 8s. This, when added to the freight from England, and the freight from Belize, increases very greatly the price of the goods. The progress of the mules is likewise very slow, for although, if the weather be favorable and the ground be dry, they may sometimes travel twelve miles in a day, they frequently do not advance more than two or three, and it is not a rare occurence for them to be stopped altogether by the mud. Sometimes a mule will take into his head, or into his heels, to tumble down a precipice with his load upon his back. I have stated that the principal merchants procure their goods direct from Europe, but there are many petty dealers, who, not being able to employ buyers in England, and to make regular remittances, still resort to Belize to make their purchases, where they are allowed twelve months' credit. This class of traders generally pay for their goods in old church plate, (which has, no doubt, been stolen,) silver bullion, and gold dust. These gentry require to be sharply looked after, for they not unfrequently have recourse to tricks, which, though Shylock might have

called "thrift," we are apt to designate by a harsher term. One ingenious contrivance is to stick a lump of clay, or a good sized stone, into the middle of a piece of silver ore. But the Belize merchants are generally too sharp to be taken in by this device. The late Mr. Patrick Walker used to say, that if a man had graduated at Belize, he was competent to transact business in any part of the world. Mr. Walker was that potent enchanter by whose magic wand the Mosquito shore was metamorphosed into the Kingdom of Mosquitia, and at whose instance the mighty autocrat of all the Mosquitos, George Augustus Frederick, was crowned with great pomp and ceremony at Belize, by the Bishop's Commissary, whilst a band of music played the appropriate air of that popular song commencing with the words "Hoky-poky, winky-wang." In the year 1853, there was a deficiency in the value of the imports from the West Indies and foreign States compared to those of the former year, amounting to £4,000, but from Great Britain and the United States there was a slight increase. In the exports there was a deficiency amounting to £46,000, there being a decrease to Great Britain of £63,000, and an increase to the United States of £20,000. The total amount of the exports to Great Britain, the United States, and other countries, was £345,077. The total amount of outward ships, 24,933 tons; and the number of men employed was 990. In 1854 there was a very great increase both in the imports and exports. The amount of the imports I have not been able to get correctly; the amount of the exports was £452,323. The inward ships amounted to 31,124 tons, and the outward ships to 27,803 tons. The number of men employed was 1,259. I have now stated the amount of the trade of Honduras up to the last report. The staple commodities which form the export trade of that settlement are principally mahogany and logwood. Some cocoa-nuts are occasionally exported as broken stowage, but the quantity is too trifling to deserve particular notice.

(To be continued.)

ART. V.—LEE COMPARED WITH WELLINGTON

[From the Southern Review.]

The Duke of Wellington is never spoken of, by English writers of any class, but in terms of the most extravagant eulogy. That he did great things is true, but we can conceive of nothing which a mere mortal could do, sufficiently great to justify the hyperboles of which he has constantly been the subject. Upon comparing the catalogue of his exploits with those of other generals, such as Turenne, Eugene, Marlborough, and the great Frederic, we fail to see the enormous superiority which we are told is so very apparent. Before the campaign of Waterloo, most assuredly, his achievements bore no comparison whatever to those of Napoleon. As compared with those of General Lee, they seem, including even Waterloo, absolutely insignificant. General Lee, with a force not so large as the Anglo-Portuguese regular army which Wellington had under him when he encountered Massena in 1809—not half so large as his whole force if the Portuguse militia be taken into the account—in the space of twenty-eight days, in three battles, killed and wounded more men than Wellington ever killed and wounded during his whole career, from Assaye to Waterloo, both inclusive. In one of these battles Lee killed and wounded more men by 9,000, than the French army lost, including prisoners, in the whole campaign of Waterloo, and the pursuit to the gates of Paris. In the same battle he killed and wounded more men than Wellington, Blucher, and Napoleon, all three together, lost in killed and wounded in the *battle* of Waterloo, by 5,000 men. In the second of these battle he killed and wounded the same number that both the opposing armies lost in the battle of Waterloo; and in the third he killed and wounded more by 7,000 than the French alone lost in the battle of Waterloo. In the three battles together, Lee killed and wounded more men, by at least 30,000, than the Allies and French lost in the whole campaign, including prisoners. The force with which Lee operated never amounted, at one time, to 50,000 men; the force with which Wellington and Blucher acted was, even according to English estimates, 190,000 strong. The force to which Lee was opposed was, from first to last, 240,000 strong; the force to which Wellington and Blucher were opposed was but 122,000 strong. When Massena invaded Portugal in 1810, Wellington had 30,000 British troops, and 25,000 Portuguese regulars, who, in the battle of Busaco, according to Wellington's own account, "proved themselves worthy to fight side by side with the British veterans," besides 40,000 admirable Portuguese militia. He had Lisbon for his base, with a British war fleet riding at anchor, and innumerable vessels of other descriptions plying between the port and England, and bringing the most abundant supplies of arms, provisions, and munitions of war. He had

surrounded the port with the most tremendous system of fortifications known in modern times, and his task was to defend the strongest country in Europe. In Lee's case, his enemy had possession of the sea, and could and did land a powerful army to attack the very basis of his operations, while he was fighting another of still greater strength in front. It is probably not altogether just to Wellington to institute this comparison. If his deeds look but commonplace beside the achievements of this campaign, so do all others. The history of the world cannot exhibit such a campaign as that of Lee in 1864.

ART. VI.—PRAIRIES.

BY PROFESSOR C. G. FORSHEY.

TRACT I.

The regions of country covered by grass and without forests, in North America, have been called *Prairies*, from their resemblance to meadows; for this is the meaning of the word *Prairie*.

The name was given by the French under La Salle, who ascended the St. Lawrence and the northern lakes in their Indian pirogues, and from the south end of Lake Michigan, where Chicago now stands, passed up the little river of that name and across the flooded *Prairies*,* the first they had ever seen, reached the Des-Plaines fork of the Illinois river, and descended that stream to its mouth and the Mississippi to the Gulf of Mexico.† Returning by the same route to Illinois, they wandered widely, and carried back to France the most glowing descriptions of the limitless meadows of America. Their grandest ideas of prairies, however, were eclipsed by the realities the same parties found in Texas, when, three years later, in their search for the mouth of the Mississippi, they coasted the Gulf westward to Aransas Bay, and thence on foot explored our country diagonally, crossing some 500 miles of Texas prairie on their tour, which found the Mississippi river at the mouth of the Arkansas. The bones, or the dust, of the accomplished and

* The writer enjoyed intense satisfaction, on a geological and pleasure tour from the South, made in the summer of 1839, in examining the very route taken by LaSalle one-and-a-half centuries before. Chicago was a young town, stuck in the mud in 1839.

† Marquette is now discredited as to his tour down to the Gulf.

heroic La Salle* repose on a Texas prairie, where he was murdered by one of his men. So much for the name.

EXTENT OF THE PRAIRIES.

They are bounded east by the Scioto river, in Ohio, and south by the Ohio river down to its very mouth. There are some prairies in in Northwest Alabama, which extend across the State of Mississippi in irregular patches to the waters of the Yazoo, where they are replaced by the great alluvial forests of the Mississippi.

They extend over a large portion of Western Ohio, the State of Indiana, and almost cover the State of Illinois. On the north they extend into the State of Michigan, and they sweep up from Illinois, over Wisconsin, to the Chippewa river, and round to Green Bay, limited north by the primary beds and the copper and iron region, clothed with pine forests.

West of the Mississippi the prairies sweep over Minnesota, Iowa, North and West Missouri, Nebraska, Kansas, and down through the Indian Territories, touching Arkansas; they reach Texas west of the Boggy, and then spreading to the east, occupying the whole west, except the two Cross Timbers and the stunted forests of the Upper Brasos and Colorado. They cover the main body of the State west of longitude 95°, and bearing eastward with the Trinity, they leave that river about Smithfield, at latitude 30½°, and tend towards the coast at the Sabine river. Nearly all Texas west of this zigzag line may be called prairie country.

In all prairie districts the streams are usually skirted by forests; and besides these exceptions, there are occasional belts of timber not easily accounted for; and with changes of geological features there are often forest areas traversing the prairies; such, for example, is the pine and oak forest belt covering the iron hills and slopes, from the middle and eastern counties of Texas, bearing southwest, through Smith and Cherokee, to Bastrop and Fayette, on the Colorado, and terminating near Gonzales, on the Guadalupe.

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*No adequate monument to his memory has been erected in Texas—not even a county bears his name. That a great city does not now rejoice in that chivalric name is not the fault of Dr. Levi Jones, or this writer; for in the year A. D. 1847, we two builded such a city (on paper)—to cover nine square miles of ground, at a safe distance below the *Powder Horn*, in Calhoun county—as never graced these trans-Atlantic shores. Strangely enough, New York never recognized her rival; and the city of LaSalle, like Baalbec and Troy, at present cannot be found.

The great American Desert, bounded east by about longitude 100° west, from Mexico all the way to British America, may be taken as the western boundary of our prairies. This Desert has little herbage, and is scarcely entitled to the beautiful name of "the prairies."

TRACT II.—CAUSES OF PRAIRIES.

The geological features of the country over which these prairies prevail, all pertaining to the carboniferous, the cretaceous, or other tertiary formations, indicate plainly that they have been beneath the ocean waters for indefinite periods, and have emerged from those waters.

Nearly the whole area, I believe, bears evidence, also, of what geologists call the drift period—a time when the whole region was flooded by violent currents of water, from a northward course chiefly, washing the surfaces of the earth into the ridges and valleys, and heaping up in places the water-worn pebbles and boulders, swept for great distances, and leaving the land denuded of forests everywhere.*

On the emergence of the ground surface it was bare of vegetation, there being neither forest nor prairie. And without disturbing the question of a new generation of plants without seeds, such as had been previously on the earth, and the newer ones, not known to older formations, we ask how these surfaces were clothed with their mantle of verdure?

The answer seems obvious. The seeds of weeds and grasses, or annuals, many of them have plumes, enabling them to travel upon the wind. These were most easily, and hence first disseminated; so that prairies would precede the forests. The latter must be accounted for rather than the former.

Forest trees have larger seeds, and they could only be transported by birds and animals, in whose food they escaped digestion. The process would be slow of distribution, and is not yet completed. In fact the prairies, prior to their frequentation by civilized man and his flocks and herds, were liable to frequent fires from light-

* The impressions of the writer, obtained from geological studies, lead him to associate the close of this period with the descriptions of the creation and introduction of man upon earth, as contained in the first chapters of Genesis. Man has not yet been certainly found as a fossil, in or beneath those drift beds, but his bones are found in great numbers in the alluvions formed since this diluvial epoch.

ning or savage carelessness; and thus the starting forest trees were cut off from time to time, only being able to survive along the humid grounds near the streams. Hence our prairie and forest alternating.

TRACT III.—TEXAS PRAIRIES—PECULIARITIES.

The entire coast region of Texas is prairie, with the mere exception of skirts of timber along the streams that come down to pour their waters into the Gulf.

A belt from fifty to a hundred miles from the Gulf outward is much less fertile than prairies further from the coast. Within this belt there are no hills or rocks till it narrows down to the Gulf about Aransas and Corpus Christi Bays. Here the rocks and the bluffs of the tertiary beds emerge from the clay and sand beds of the drift, nearly on the very coast.

Over this area the soil is generally gray, and sandy or loamy, and, when cultivated, soon requires and rapidly drinks up the manures. It yields kindly and promptly to cultivation with the aid of manures, but is chiefly better adapted to stock-growing than agriculture. These prairies, on the margins of the forests skirting the streams, are best, and were being rapidly embraced within the fences of the planters before the war.

The prairies beyond this coast belt are first very black and fertile. Many portions of the black tenacious lands are scooped into little basins, called "hog-wallow," from their resemblances to the beds made by hogs, but they are generally larger—perhaps ten feet diameter and eight inches depth being the average of these basins. These are very rarely found on hill sides, but generally are on grounds comparatively level. They are usually imputed to the clefts produced by very dry weather, and the caving in of the ground to fill these crevices. This solution is undoubtedly the true one, for the clefts often reach several feet in depth, and are wide enough to be dangerous to horse and rider, if not carfully traveled.

The lands called "hog-wallow" are generally of the hig hest fertility, and they yield readily to the plow and agriculture. They are the last to yield their moisture, and stand drouth better than any other uplands. Cotton, corn and every Southern growth thrives here; and these black lands reach to, and somewhat penetrate, the wheat region.

The southwestern portion of this belt, south of latitude 30°, may be classed with the coast belt, and devoted mainly to stock-growing.

The next belt of prairie may be described as occupying the remainder of our habitable area. It belongs to and partakes of the nature of the limestone which underlies it, and often crops out through it. This stone has all the shades of composition, from arenaceous to pure white and cream-white limestone. The soil is fertile and durable, often taking the chocolate tinge, and often shading from black on the surface through chocolate to yellowish clay, but with little or no sand. When wet it is extremely tenacious, and makes the heaviest roads ever traveled. In fact the farm yards and stock pens are sad places when much used in wet seasons.

These lands are adapted to nearly all kinds of culture, and are generally known as the wheat lands of Texas. The mezquite grass and trees belong to this, and partly to the second description of prairies. Both are rare on the coast belt.

Stock of every kind fares well on these prairies, and stand winter better than on the praires further south, but they are too valuable for tillage to be long allowed to run wild, and except in the mountains, are rapidly growing in value as emigration pours into the State.

TRACT IV.—DECADENCE OF TEXAS PRAIRIES.

The prairies of Indiana, Illinois, Missouri and Iowa, and perhaps others with which the writer is less familiar, have shown a strong tendency to produce shrubs and trees, when domesticated or well protected from annual fires. I would call special attention to St. Louis and Rock Island vicinities. When the writer first examined these localities, in 1838, the thick growth of black jacks were just covering the St. Louis commons an inch or two in diameter. Now they are great forest trees, where the commons, late prairies, have been left uncleared. At Rock Island they were just springing up on lots inclosed, but on the commons had not started. Black jacks, white oaks and hickories were almost exclusive in the first growths. Only one of fifty survive, and they, too, are now nearly trees.

But in Texas, while the same tendency is observable at some distance from the Gulf coast, the live oaks and mezquite trees are the claimants for possession of the prairies. The live oak is not a very

successful aspirant. The stock attack it with great energy in winter time and tramp it to death for shade in summer. Though not a very nutritious or palatable leaf or browse, still cattle, sheep, and especially goats, trim the young shrubs down annually, and hence they produce commonly a very stunted and crippled copse of gnarled shrubs. Still some survive, and are rising to trees. The mezquite, on the contrary, is quite unfit for browse, and is so armed with sharp thorns as to be proof against attack. It grows with a vigorous root, that branches wide and reaches great size. All over the prairies west of the dry line,* longitude 97° west, the mezquite bushes are springing up and making a chapparal of our beautiful prairies. It is painful to witness their rapid decadence. Ten years since I traveled over several hundred miles of these prairies, from Bonham to Gonzales, and Victoria, and then they were nearly all an unbroken "sea of grass." Occasionally, all the way down, my devious road would cross the boundary, and the mezquite tree was one of the most palpable of the many indications in the fauna and flora of the rapid transition of climate. The shrub was rare, and where the trees were most common they were scattered sparcely, so as not to disturb the prairie surface. A recent journey over a considerable portion of the same route has shown the change to have been rapid. Now it is difficult to ride through many of these brambles. For miles together the chapparal, in summer, entirely conceals the grazing stock, greatly reduces the pasturage, and threatens the total destruction of the prairies.

TRACT V.—UTILIZATION OF THE CHAPPARAL ON TEXAS PRAIRIES.

—"And good in everything."

The greatest want felt by those who settle upon these endless prairies is timber—forest trees. Their production is neither easy nor rapid, nor at all practicable without fencing. Nature offers a remedy, to a considerable extent, in this nuisance—the mezquite chapparal—if taken while the shrubs are small and flexible. Nothing destroys them, as remarked above, so that no fencing is required for our purposes. It is only necessary to prune and trim them up when

*Smith interrupts by asking, (the impudent fellow!) what has become of the *dry line*—this winter? says he has been hunting it to dry his Sunday clothes on, but got wet every time. All I can say is, that it is too long a line to *take in* every time—besides, the Indians have been bad out there, Sherman says, and maybe have got it for lariats.

young, selecting the straightest, and cutting away their neighbors that choke them. Their growth, like other trees, now so well understood in this respect, will be greatly accelerated by this pruning; and if twice or thrice pruned annually, they will make trees as rapidly as the black locust of the Western States. For example, if your shrubs are ten feet high now, and two inches in diameter, in two years more they will yield poles for rails; in five years they will be large enough for posts, and in ten years will have six to ten inches in diameter and a comparatively straight body of ten to twenty feet. In twenty years they will answer a thousand uses about the farm and workshop, for the timber is almost imperishable. It has the rare merit of neither shrinking or expanding. It splits pretty well while green, but is uncleaveable when seasoned. If planted or selected in rows, it answers for living posts, into which any rails may be morticed, and grows fast. No better fuel can be found. The fire it makes, even when green, is like that of the china and ash, prompt in starting, and extremely hot. The chapparal itself yields all the small fuel required.

Try it, my prairie friend, on forty acres. Step off four hundred and forty yards each way and make a square tract, and trim out rows about six feet apart both ways. You will have nearly fifty thousand trees. If you lose one in five it will leave you forty thousand. At the end of two to four years you may take out the alternate tree for rails, and you will have twenty thousand rails, ten feet long, enough for three miles of fence, worth $1,500. In the fifth and sixth years, you may take out half the remainder, each making four rails, or four posts of like value, worth $3,000, and by the tenth year the trees will be worth fifty cents each, or $5,000 more; and the whole work devoted to them will be three trimmings, by two hands, once a month, not $200, and an occasional month of subsequent work, worth, perhaps, $100 more.

Make timber land of your chapparel, for a mile square, by this calculation, will yield you larger returns for the labor than any cultivation you could give it. The Mezquite is not long lived; perhaps would be worthless at twenty-five years old. It must be used while young and vigorous. Industry and perseverance will find some

ART. VII.—THE SHIP ISLAND CANAL REVIEWED.

BY JOHN ROY, ESQ.

As it is our province to give to the public every enterprise which proposes the good of commerce, or the development of other industries, we publish a communication of Mr. John Roy, addressed to the New Orleans *Times*, in reply to an article which appeared in DeBow's Review for January, 1869, on the "New Orleans and Ship Island Canal." Whilst we agree with the author of the article, that it is extremely desirable to approach New Orleans from the Lake with vessels of deep draft, and deem drainage and portage on that side of especial importance, we have never regarded the plan of deepening the channel to sea by that route as practicable. It was, however, our duty to publish all plans having for their object the improvement of our commerce, and we take great pleasure in publishing in like manner the observations of Mr. Roy, which, so far as they relate to the physical difficulties of the Ship Island Canal, are every way worthy of consideration. The reader will find in the communication a great deal of practical and scientific observation, miscellaneous, it may be, but instructive. Mr. Roy is known to us as a respectable and sagacious man, who has had great experience in the practical hydraulic of our river and lakes.—[Ed. Review.

AS A COMMERCIAL ENTERPRISE.

To the Editor of the New Orleans Times :

Sir—I have read the reports of fourteen engineers for, and eleven against, the construction of a Ship Island Canal, and I do not wonder at the Governor being unable to decide which is right, when such men as Durant, DaPonte, and other old citizens, advocate a scheme which, to say the least, is of questionable utility. For the lake trade and small coasting vessels, even if this canal were now open, they could not afford to use it, because they would still be able to enter the city through the old, and new canals at a much cheaper rate. As the Ship Island Canal could not admit vessels drawing more than seven feet of water until they had deepened the middle ground in the Mississippi Sound, they could not expect to compete with the open lake and short canals already dug. Another ship canal above the English Turn, opening into Lake Borgne, will most likely be opened for vessels before it can be possible for this canal to be opened, as the distance from the river to the lake is but short. It is questionable, however, whether this ever will be a ship canal, so long as vessels drawing fifteen feet can cross the bar and come up the river. But for light vessels, whose draft does not exceed seven feet, this is a most desirable route, should the Ship Island folks succeed in deepening the middle ground in the Sound. It will be just as available for this route as for the other. But as it would be impossible for heavy ships to enter by either

route, the river will continue to be the principal entrance to New Orleans; because no vessel could navigate this narrow channel at night, whereas in the river the tows run night and day. As most of the trade will be carried on in steamships from this time forth, it is clear that no steamer would enter a canal one hundred and twenty-five feet wide, when they could come up the river, over two thousand feet wide. Again, a steam vessel can run ten miles an hour up the river, when she could not run three miles an hour in a narrow canal. But there is still another enterprise on foot for a ship canal, some seven miles below Fort St. Philip, which, if the soundings given for the water are correct, seems to be much more feasible than either of the others, so far as large vessels are concerned. I still am of the opinion that the river is the better route of any of these, because Mr. DaPonte's canal requires to be dug through about thirty miles of land and forty miles of sea, whose average depth does not exceed thirteen feet, and is exposed to every wind that bolws, and the English Turn Canal has about six miles land and the balance sea thirteen feet, deep; the Fort Canal requires about five miles digging, and the whole requires locks. The river can always accommodate ships drawing, say fifteen feet, without any trouble whatever.

The bar at the mouth of the river might easily be deepened to twenty feet or more. If such an obstruction to commerce were at the entrance to Boston, New York, or any European harbor, it would soon be removed, by simply removing the deposits as fast as they were made. The deposits in Southwest Pass are equal to four hundred horse power, and if they were removed and put on the banks of the river the levees would be improved, and the land reclaimed; or, if this was too slow, the flats could carry it to sea and drop it into deep water. A dredger of four hundred horse power, and the necessary flats could be got for, say three hundred thousand dollars, and if two were necessary, to keep one at work all the time, when the weather would allow, the second assisting as required, the cost would be six hundred thousand dollars. The vessels cleared at the Custom-House in the year 1860 were 2,336, and the tonnage 1,257,071 tons. At five cents per ton, it would give $62,853 35 for the working expenses yearly. But no; we must have something grand—a railroad running to no particular place; a grand Custom-House without a roof; a magnificent church without a steeple; and now the grand New Orleans and Ship Island Canal, that will cost ten times as much as it would to keep water on the bar, and if constructed, will most likely be a nuisance! In any other city in the world where a river divides it, bridges are built across, to the detriment of commerce by water, that commerce by land shall be promoted. But we of New Orleans, with a harbor on both sides, propose to cut the city in two, for the purpose, as it is alleged, of making a harbor in the centre! This would be very inconvenient to persons whose business required them to pass by the bridges two miles apart; and if a harbor is required, is there no place below the city where docks can be made? Is not the lake shore, the New Canal, Bayou St. John, susceptible of being made to accommodate all the shipping that ever can reach them, they being just as accessible, and more so, than ever will be the canal in question. I do not advocate opening communication with the lake and river in the city. But if it is necessary, surely it can be done through the New Canal, between St. Joseph and Julia streets, where there are no caving banks, as well as through the Ship Island Canal. But so far as I am able to judge, I believe that the city has water privileges enough, and could well afford to fill up every open canal, both old and new, and let the harbors be on both sides of the city. With a pass to the east coast above the English Turn for light draft vessels, commerce would have avenues enough without cutting into the heart of our city, as is proposed by Mr. Durant DaPonte, in the January number of De Bow's Review for 1869, page 25, where he says: "That is to say, we must make New Orleans change front, and establish her main harbor toward what is now the rear of the city. The consummation of the project involved, in the charter above referred to, will effect this object, because it will bring New Orleans within thirty miles of the deep waters of the Gulf." So we see the whole scheme is based upon this assertion, that it is thirty, and not seventy, miles to deep water in the Gulf. But Mr. DaPonte makes another statement, which is true. Page 26: "The direction of trade is governed by forces which follow the line of least resistance, and resistance is a final quantity, compounded of time and cost. The line of least resistance is that on which the resultant, or product of these two

factors, is the least; and when we have thoroughly comprehended this fact, we have mastered the explanation of the phenomenom which seems to perplex so many people—the relative decrease of the commerce of New Orleans compared with the commerce of other seaports." We admit the above statement to be true, but the conclusions drawn from it by Mr. DaPonte are very doubtful. He concludes that, because a vessel can go to Boston for one-fourth, and to New York for one-third of the expense that she can come to New Orleans and load, he has discovered the cause of the decline of commerce in New Orleans to be the difference in charges. He makes no allowance for the war, the desolation of the coun'ry by fire and sword, the want of labor to cultivate the soil, and the want of a crop of cotton by which to load vessels. As well might he compare the charges of Portsmouth, or Portland, with New York and Boston, as to compare Boston with New Orleans. Owners of vessels do not send their ships to ports on account of the high or low rate of charges, but where freights rule highest and a cargo can be got. Therefore, the above rule applies, because the cost, although apparently higher in New Orleans, must really be lower, when the profits are considered, than in Boston, or how would so many fine ships be lying in our harbor from Boston. The fact is, the lines of resistance to be considered are not whether Boston or New Orleans are the highest, but whether the charges of New Orleans could be reduced by the opening of the Ship Island Canal. The New Orleans charges on a ship of one thousand tons, drawing fifteen feet, are given by Mr. DaPonte, but they are given in such a careless way that no reliance can be placed in them.

For instance, New York charges are as follows:

Tonnage	$300 00
Entry fee	5 50
Harbor Master	15 00
Health Officer	6 50
United States Hospital, (say thirty men for a month,)	6 00
Pilotage—inward	85 00
Pilotage—outward	38 00
Wharfage	20 00
Towage	200 00
Total	$775 50
Should be	676 00
Difference	$ 99 50

Now take New Orleans:

Tonnage, say	$ 300 00
Bar pilotage—in and out	135 00
River pilotage—up and down	120 00
Towage—up	1,250 00
Towage—down	500 00
Wharfage	250 00
Total	$2,285 00
Should be	2,555 00
Difference	270 00
Difference	99 50

This shows that Mr. DaPonte has made a mistake of $369 50 in stating the charges on a ship of one thousand tons burden, drawing fifteen feet of water, entering and clearing from New York and New Orleans. The charges on a ship of one thousand tons, drawing fifteen feet water, coming in and out, I find to be as follows. The item of tonnage is a national and an annual charge. I therefore leave it out as not affecting either side of the question:

Bar pilotage	$ 135 00
Towage—up	1,250 00
Towage—down	275 00
Wharfage	200 00
Harbor Master's fees	30 00
Total charges on sailing ships, fifteen feet draft	$1,890 00

STEAMSHIPS.

Bar pilotage	$ 135 00
River pilotage—optional	105 00
Wharfage and Harbor Master's fees	230 00
	$ 470 00

Thus we find the charges on 1,000 tons to be forty-seven cents per ton, and upon a sailing vessel of 1,000 tons, to be $1 89 per ton. This is the money factor of the river side of the equation. Let us examine the other factor, time. But as I have no faith in Mr. DaPonte's figures, I will give the distance as measured on the map of the United States Coast Survey of 1865, A. D. Bache, Superintendent, verified by Capt. Russell, as follows:

Tortugas lighthouse, latitude north 24 degrees, 37 minutes, longitude west 82 degrees, 55 minutes.

Ship Island lighthouse, latitude north 30 degrees, 13 minutes, longitude 88 degrees 57 minutes.

South Pass lighthouse, latitude north 29 degrees, 01 minute, longitude 89 degrees, 09 minutes.

Distance from Tortugas light to Ship Island light, 460 miles; distance from Tortugas light to Southwest Pass light, 430 miles, which is three miles up the river; hence the distance to the bar is 427 miles from the Tortugas Islands—this making thirty-three miles difference.

But the Tortugas is the most favorable point for Ship Island, and all departures made to the westward of them will favor the bar or river entrance. A ship sailing five miles an hour, starting from Tortugas, will make the bar in 85 2-5 hours, and the city in 24 hours more, in all 109 2-5. I leave out the detention at the bar and at Ship Island, because I see no reason why they should be different. Then we have the river side of the question in accordance with Mr. DaPonte's rule, viz: $1 89x109.4—206.766 for ships and for steamers, at ten miles per hour, 427x110 divided by 10—53.7 hours and $0.47x53.7—25.24. This is the resistance by the line of the river; both factors are known quantities. How is it with the other line by Ship Island. Both are as yet unknown. From the Tortugas to Ship Island is 460 divided by 5—92 miles, .5.92 hours.

It is difficult to arrive at an exact estimate of the time and cost of navigating a ship of one thousand tons, drawing fifteen feet of water, from Ship Island to New Orleans, through forty miles of inland sea, where the depth of water ranges from 7 to20 feet, and the channel only three hundred feet wide, with banks of thirteen feet of mud and seven feet of water on each side. With the wind abeam, no owner would risk his vessel in such a place, and I question whether an insurance could be effected upon any vessel entering such a dangerous channel. While in the employ of the Light House Engineers, I was stationed at St Joseph's Lighthouse, in the Mississippi Sound, for five months, during which I have seen some very heavy weather. On the 6th of April 1868, it blew from the southeast, and the sea ran so high that it carried away most of our works, cutting through the concrete and doing great damage. The sea seemed to be running about five feet high all day, until 3 P. M., when the wind changed suddenly and blew with such force from the northwest that the workmen were blown off their feet. And again, on the 13th of the same month, at 10 P. M., a storm came on with such violence that we had to put both anchors down to hold a schooner drawing six feet, although she was lying under the lee of the island. This storm lasted several days; and I have seen as many as seven schooners lie wind-bound under the lee of the island for a whole week, in consequence of storms from the southeast. In fact, it blows from the eastward two-thirds of the time. It would be impossible for any ship drawing fifteen feet to keep afloat in the Sound, with a

channel of three hundred feet wide, during such weather; and for a ship under sail to get to sea with the wind at southeast, with the eddy setting in from the Gulf stream, agitated as it is by the wind, without getting ashore on Chandeleur Islands, is a question that Mr. DaPonte gives no information upon. But our business is to take her to New Orleans by forty miles of shallow sea, a portion of which is twenty feet deep and three hundred feet wide, and through a canal thirty miles long, and an average width of one hundred and twenty-five feet, and twenty feet deep. This is the line of resistance to be overcome by the Ship Island route. If I take the speed of vessels in this canal at four miles per hour, it would be as much as I believe they could ever obtain, even if it were practicable to maintain a channel twenty feet deep. We then would have seventy miles, divided by four, or 17½ hours, and 92 hours from Tortugas, which would make the time factor 109½ hours for ships, and for steamers from Tortugas 460:10—46 hours and 17.5 make 63½ hours from Tortugas to New Orleans. The cost, Mr. DaPonte says, page 27: "The proposed canal would reduce the pilotage from $250 to about $50, and the tonnage from 1,750 to $150. Say a saving in these two items alone of $1,800, and leaving the other charges to be represented by five hundred dollars at the maximum, in which would be included the tolls levied by the company." This amounts to $700 as the canal charges upon a ship of one thousand tons, or seventy cents per ton. As there will be at least six different companies among which the commerce of New Orleans will be divided, viz: the river route by the bar; the river by Fort St. Philip Canal; the river by English Turn Canal; Da Ponte's Canal; Canal Carondelet; and the New Canal. Let us suppose that the Ship Island Company does one-fourth of the whole business, or 250,000 tons at 70c., the income of the canal would be $175,000 per annum. How this would pay I must inquire of my friend Jeff, the competent engineer employed by Col. George F. Brott, President of the New Orleans and Ship Island Canal Company, who says that twenty-eight miles of this canal: "When this distance shall have been completed to the full section of 150 feet at surface, 100 feet on bottom, and 20 feet deep, the total excavation will be about 13,000,000 cubic yards, and, estimating the value of this work as done partly by manual labor and partly by machinery, it will average 33⅓ cents per yard, or $4,333,333⅓." More correctly, section—277⅞ square yards x 1,760 yards, or one mile; 28 miles—49,280, and the whole, 49,280 x 277 7-9—13,688,889 cubic yards, at 33⅓ cents per yard—$4,562,963. Difference, $229,630. This far I have taken friend Jeff's data, although I believe there will be thirty miles instead of twenty-eight to excavate to the Rigolets, and beyond there for forty miles there is very little deep water in the Sound, and at low water there is but seven feet on the middle ground, although Mr. Thompson says there are ten feet. But this matters but little, for if it were dug to twenty feet, three hundred feet wide, it would fill up with the first gale of wind.

But the cost of digging through this ground is what we want. "This work cannot be properly estimated, for it will cost so much *less* than similar work in other localities, that it is not proper to calculate from usual data." This is so rich that I almost think that Jeff must have been joking when he wrote it, for he surely knew that the middle ground in the Sound is far at sea, and without shelter on either side, and that if he could work his dredger six full days in a month, it would be as much as any one acquainted with the locality would expect.

But even at 33⅓ cents per cubic yard 10 miles, 300 feet wide, average depth, say 12 feet—17,600 yards x 100 yards x 4 yards—7,040,000 cubic yards at 33⅓ cents—$2,346,666 66⅔. This gives us for the exact dimensions of the canal 20,728,889 cubic yards of excavation.

At 33⅓ cents per yard	$6,909,629 66⅔
Two locks, one for ordinary and one for high water	500,000 00
Two boats, say	200,000 00
Bridges, say	300,000 00
Wharfs, landings, half moons, etc	100,000 00
Capital invested	$8,009,629 66⅔
Interest on capital invested at 8 ℘ cent	640,770 37½
	$8,650,400 04

This is a very moderate estimate for so grand an enterprise as this appears to be.

It must be clear to Mr. Durant Da Ponte that the force in this direction seems to have considerable resistance, as the interest on the capital invested amounts to $640,770 37½, and the income upon 250,000 tons of shipping at his own figures, 70 cents per ton, only amounts to $175,000; and out of this, the expenses of coal, provision, wages, wear and tear of boats, officers' salaries, etc., which will more than absorb every dollar of this income, leaving the company in debt to the amount of $640,770, 37½ every year, besides the total loss of the capital invested. With a capital and interest invested as follows:

Capital invested	$8,009,629 66⅔
Interest on capital at 8 per cent	640,770 37½
Canal expenses per annum	175,000 00
Total expenditure	$8,825,400 04
Should return at least 10 per cent	882,540 00

This income, if divided by the amount of tonnage for one year, would determine the necessary charges to be made to make the canal a paying concern, say $882,540—250,000 tons—$3 53 per ton. This, then, is the money item or factor in the canal equation:

Then the Ship Island scheme stands, money	$3 53 per ton.
" " River monopoly	1 89 "
Time for sailing ships by river from Tortugas	109.4 hours.
" " " by Ship Island Canal	109.5 "
" " steamers by Ship Island Canal	63.5 "
" " " by river	53.7 "

and by reducing the whole to Mr. DaPonte's rule. "The line of least resistance is that on which the resultant or product of these two factors is least," we have—

For Ship Island Canal on ships	$3.53 by 109.5—386,535
For River Monopoly on ships	1.89 by 109.4—206,766

Therefore the river is the line of least resistance by 179,769, nearly one-half less, and it is a reality, the other an ignis fatuus. Mr. Durant DaPonte says: "Passing from cost to time, we must compute the difference between the two routes for a vessel coming from the entrance of the Gulf, say the Straits of Florida, as a test: the distance to the bar is, say, 600 miles, and to Ship Island, say, 630. If it would take a sailing vessel 120 hours to make the bar, it would take the same vessel 125 hours to make Ship Island." How a vessel that sails five miles an hour to the bar could sail faster to Ship Island, deponent saith not.

"But at the bar she would be detained on an average twenty-four hours, and the trip to the city would consume twenty-four hours more. Thus by the river route she would be 168 hours in reaching New Orleans. Now, supposing a detention of two hours at Ship Island, and allowing six hours to reach the city by way of the canal, it would take a vessel by this route 133 hours, or a saving of 35 hours over the other." Why Mr. Durant Daponte supposes a delay of two hours at Ship Island and 24 hours at the bar requires explanation. Does he mean to run a tow every two hours? Does he mean to run a tow in a ditch at night? Does he talk of running a distance of 70 miles in six hours, in a canal 125 feet wide, when steamers do not run over three miles in the New Canal in an hour? But I had almost forgot he says that it is only thirty miles to deep water in the Gulf. Perhaps he intends ships to sail to the Rigolets? I guess that no vessel of one or two thousand tons can sail in a ditch three hundred feet wide, and twenty feet deep, with a heavy sea running, especially if she is drawing eighteen or nineteen feet of water. She may sail up the river, but the Sound she cannot enter. When a ship gets to Ship Island she has to wait for a wind to get to sea, as the harbor is landlocked. Not so at the river. When a ship is over the bar, she is at sea, in deep water, and the Gulf Stream carries her off at once, whether the wind is favorable or not. Hence, as the river is the line of least resistance, it is desirable that these gentlemen, who have shown so much perseverance against the interest of commerce in New Orleans, should now devote a portion of their energy to the removal of the bar at the mouth of the Mississippi.

ART. IX.—FLORIDA, ITS CLIMATE, SOIL AND PRODUCTIONS.

BY J. C. DELERY.

Such is the title of an anonymous pamphlet of some sixty pages, giving a succinct history and description of this country. It is accompanied with a map, purports to give reliable information, and sets forth the inducements for immigrants.

The author, whoever he is, does not favor us with his name, real or assumed, and is careful to disclaim the attempt to write a book about Florida. His history of it, contained in two pages, brings us down to the present period, and closes with a well rounded period about the evils it has suffered by plunging itself into the "useless slaughter of a hopeless rebellion," leaving her "in the silent embrace of a moveless desolation." It is not readily perceived, what that has to do with the inducements to immigrants to come and settle in the country.

Before we consent to be entertained by the lucubrations of an author, we are curious to know something of his complexion, not whether he is black, white, or tan, but what is his character, and temperament, and disposition; to know what are his designs, what objects he has in view, in order that we may at least judge of their laudableness. But here we are completely in the dark, and have no other guide but the professions contained in his title.

It has become desirable for the South to encourage immigration within its limits, for reasons which are palpable enough. It has rich lands in great abundance, which are untenanted; it has a genial climate, and enjoys many advantages not common to neighboring countries. By the effect of an unfortunate war it has lost a great part of its labor; hence its interest in inviting immigrants, to give value to its lands. It looks also to something more; it expects the new population to identify itself with its citizens, as has been uniformly the result with all foreigners that have come among them; and it seems no great effort is required to convince people of this fact.

Such a call, then, need not create astonishment on the part of any one. But when this Florida book falls into the hands of a would-be emigrant, he will very naturally wish to know where it comes from,

and from whom. Is it from the constituted authorities, from a committee of citizens, from private individuals, or any public body? He would look in vain to the title to know from whom the book emanates; he will find no signature except a letter from a lieutenant governor, addressed to a governor, who ordered it to be published. The immigrant is thrown upon the resources of his imagination in a voyage of discovery to find who is his well-wisher; and to test his sincerity he will study the context with a suspicion of the design. He will wish to know something of the character of the people among whom he is to come with his household gods. At the outset he is told that he comes amongst rebels, who have caused a "*useless slaughter*" in a "hopeless rebellion." This, to say the least, is not very encouraging, and he may suppose that he will have to help to finish to crush them out, and perhaps have a share in the spoils. The fact is, if he wishes to come, he is perfectly free to do it, whether called or not; but if he is called, he should know by whom and in what spirit.

The author proceeds with a description of the country. The geography, climate, soil, etc., may be very correctly represented, as these points are not difficult of discovery, and could not well be misrepresented without fear of contradiction; but the social condition is a theme on which he seems to think himself free to inveigh with pleasure. He says "the pre-eminence given to the cotton crop, and the prevalence of slave labor, have conspired to stimulate the *universal Southern passion for the acquisition of land*," etc.

There is certainly nothing very astounding that pre-eminence should be given to the most valuable crop, unless some very good reason could be given for adopting an inferior one instead; it is, at least, not usual among people of common sense; but it is time that this nonsensical hobby of "the universal passion of Southerners for the acquisition of land" should be stopped—it is simply untrue. It implies the insinuation that the Southerners, being slaveholders and aristocrats, made it a business to possess all the land they could and more than they could use, for the purpose of keeping others away, and that they would not sell it, etc. It has not only been intimated, but seriously *alleged officially*, in public documents addressed to the public authorities. It is pitiful that any should believe the absurdity. The fact is that the passion to own lands is

one that is common the world over, and particularly among all classes of Americans, North and West, as well as South. If a reason be wanted why it happens that larger tracts of land are owned at the South than elsewhere, it can be found *aliunde*. In the new States the lands were all public lands, the new settlers were generally of small means, and bought no more land than they wanted; at the North landed estates became subdivided in consequence of the density of population, by the natural course of subdivision by inheritance, and of high price. In the old States of the South the former governments made large grants of land to individuals, and those lands were necessarily the property of somebody; they could not be in abeyance; the owners could not use them all, and could not sell them, because there were no purchasers. Immigrants went all to the West, where they could get government lands at a nominal price.

"There has been no tendency to settle in villages and communities" The absence of towns is attributed to a wrong cause; it was not that "King Cotton" was "a social tyrant," "decreeing solitude to its votaries," and preventing the formation of villages, churches, schools, press, postoffices, etc. Where such are established, it is in consequence of the wants of population that becomes dense; when trades and professions find an occupation, the doctor, the tailor, the blacksmith, the hatter, the preacher, the hotel, etc., then find their place. It is not a fact that such villages are formed in other places than Florida because of the greater sociableness, or civilization, of the people, and that the reason they are not formed in Florida is owing to the want of them. It would, on the contrary, have been very astonishing to have seen the owners of a dozen large plantations, as many miles apart, break up their settlements and congregate in a village. If it had been possible to learn something more of the complexion of the author, it might have been found that he was brought up in some village within the shadow of a church steeple, and that he had only filled his place on the benches of the school, and had acquired all the lore of its pedagogue, which will fit him better after a little longer residence to learn and appreciate the genius of the people among whom he has come. The misfortune is that the new comers do not realize that they have many things to unlearn instead of striving to bring men and things to a new standard. If disappointment meet those coming from

the North in social advantages and the means of improvement, it will be their own fault. There are, no doubt, many deficiencies here as elsewhere—perhaps a few more—but, in all charity, some allowances should be made for the want of opportunities for improvement and culture of a certain kind, more congenial to northerners than to the original inhabitants, the appreciation of which may be more a matter of fancy than of fact, in judging of the standard of society.

That there is an impending change in the mode of culture is in no way surprising, when it is remembered that the accustomed labor has been disorganized by the emancipation of the negroes. There will be less negro labor and more white labor, which, being more intelligent, will be directed in better and more diversified channels; but the change will be far from being "absolute and entire." Cotton was king and will be king. The author says, "*we* need strong immigration." We would be glad he should have informed us who is that *we*. It looks problematical. *We* want the emigration; *we* want strong men that will come to buy land and work the soil; *we* want men that will be good citizens; *we* want men that will identify themselves with our population; if they have "new views and new desires," they are free as air to entertain them; but *we* do not want office seekers, cormorants and interlopers.

On page nine, we find the sweeping statement: "There has been hitherto no public school system in the Southern States, as *such systems are known in the North and West*." This implies the insinuation that those of the South are worthless, and those of the North and West of undoubted excellence. Such barefaced assertions need but be stated to be appreciated. * * * "The population has arranged itself, and naturally enough, under the *aristocratic tendencies of slavery*, into three divisions of planters, poor whites, and slaves." The italics are ours. "Safety forbade the education of the slaves; the poor whites neither desired nor could afford the expense of private schools, and the planters, having the means, preferred private to public schools. And, of course, the local governments, administered in the interests of the wealthy classes, would neither establish nor enforce any system of public or free schools." The essential part of theabove sentence is untrue. We have here

again the cant and slang, about aristocrats, when it is as well known as any fact can be, that the accusation can no more be fixed against the slaveholders of the South than upon the corresponding class in wealth in any other part of the United States; and on the contrary, less so, because there was less wealth, as the statistics of the commercial and manufacturing towns will show. A fact that disproves the aristocratic tendencies of slavery, and that the local government was not administered in the interests of the wealthy classes, is, that the Constitutions of several States which contained the property qualification for voting, have been modified, and universal suffrage established instead. The Southern States were as democratic as the other States, in general, and more so than those of the New England, where the poor whites were ground down by the exactions of capitalists. The poor whites of the South were really not poor whites, because there were none, and as a class, compared with the same in other States, their standard in society was certainly not inferior to any. Therefore the assertion about them must be considered as a slur and a calumny.

"But the ratification by the people of the new Constitution gives assurance of the thorough reconstruction of the State." It had been better to have said nothing of a new Constitution imposed upon the people by their disfranchisement, and against their will, and which will certainly be abolished at the first opportunity. But such as it is, it has been accepted in good faith, and will be honorably abided by.

"The representatives of that loyalty and Unionism which brought about these wonderous changes, are certainly not regarded with particular affection by the citizens of the country." Those representatives are the office seekers, adventurers, and cormorants that have been foisted to tyranise over the people. The negroes themselves are getting tired of them, and the sooner such immigrants leave, with their ill-gotten gains, the better for all parties.

* * * "The question is asked: 'Is it safe for a Northern man to come to Florida?' The answer is that there is no sort of danger whatever." Well may it be said that there is no danger, and it might be added, that there never was any, except for evil doers, who came to incite the negroes to rebel against their owners, and it is true that they sometimes had the short shrift which they

deserved. The fear that seems to be harbored now by some Northern people is that feeling which comes over one who apprehends the hand of retribution. It makes a Southerner smile with pity to know that it exists. But let them be tranquilized; they may come without fear if invited. They can trust the Indian with the calumet of peace; the Arab after tasting salt; they may put their trust in the hospitality of the Southerners.

ART. X.—URIEL ACOSTA—A TRAGEDY, BY KARL GUTZKOW.

TRANSLATED FOR DE BOW'S REVIEW BY MRS. SARAH A. DORSEY.

Dedicated to the Hon. Henry M. Hyams, of New Orleans.

I dedicate this translation of a Jewish drama to you, my friend, first, because you are a Jew by birth; secondly, because I so give you public evidence of my affection.

I would write nothing about your people that I would not wish to read. In this drama the characters are all Jewish. Some of them are prejudiced, stubborn and opinionated. Many Christians, also, show these unworthy traits elsewhere. I regard these characters as rather representative of human than sectarian or national error. It is not in condemnation of Jews I have translated this book, but because it interested me, and because all over the earth—wide as humanity itself—extends the struggle of bold thought with blinded prejudice, and everywhere the consequences are evil when prejudice prevails.

Every man who thinks must sympathize with Acosta. The man who seeks humbly and reverently for truth must, perhaps, ever be a martyr in some way, in a world struggling to free itself from superstition; yet one must not forget that even superstition has its uses in its proper age. Man must make haste slowly, if he would go surely; and the fiery wheel of progress would rush on, like Phæton's, to set the world on fire, but for this drag upon it—the conservatism and stupid prejudice, the clinging to customs, of the great masses of mankind. It is needless to say to you that I do not, either as a Christian or a thinker, approve of the suicides which terminate this tragedy. The man who wrote it was a German, who had studied Greek and Roman authors, and—Werter. It

is simply, therefore, to be regarded as a dramatic finale; for we know and believe—you and I—that suicide is more foolish than vain. That one may rush out of mortality, but that neither here nor ever can there be escape from "life," or from the presence of God. In this belief our faith is one. You will accept this little work from

S. A. DORSEY.

LAKE ST. JOSEPH, TENSAS PARISH, LA., August 7, 1868.

DRAMATIS PERSONÆ.

MANASSEH WANDERSTRATEN, a rich merchant in Amsterdam.
JUDITH, his daughter.
BEN JOCHAI, her betrothed.
DE SILVA, her uncle, a physician.
Rabbi BEN AKIBA.
URIEL ACOSTA.
ESTHER, his mother.
RUBEN, JOEL, } his brothers.
BARUCH, a boy.
DE SANTOS, BAN DE EMBDEN, } Rabbis.
A Servant of the Temple.
Servant of De Silva.
Servants of the Temple, Guests, People.

Place of action, in and around Amsterdam.

Act I.—Place, Library of the Physician, De Silva. Time, Twilight.

Scene I.—De Silva, Ben Jochai.

De Silva—(The door opens behind him, and Jochai comes in, and walks before him, without his consciousness.)
I was thinking he would come again to
Me about that! *(Sees Jochai.)* No, no, the threshold's crossed.
Stay, Ben Jochai! at last at home, physician!
Oh, often a much troubled position!
Excuse me that I had to make you wait.
[*Whilst he speaks these last words he lays off his hat, and extends his hand to Jochai.*
Welcome to Amsterdam!

Jochai. De Silva, I thank you.

Silva. And so you return much altered
From what you were when you departed hence,
Some sixteen months ago. The sun of the
Stranger has ripened you rapidly. Here,
In this very place, before my books, I
Press'd a parting kiss upon a youth's smooth
Brow, as yet unfurrowed by a grief.
You come back a man, yes, more—upon your
Brow, Ben Jochai, I read care. Has your home,
Your new home, greeted you, the richest heir
In Holland, with but a step-dame's welcome?

Jochai. It is Amsterdam, just as I left it,
With its youthful citizens, free spirit,
Strengthened, quickly consoled from the old
Spanish griefs, by the good luck of its trade.
And in this good fortune, and in all the
Varied confusion of this port, in all
The pride of their self-gained, hardly won
Freedom, still always is retained for
Us, sons of Israel, a sweet, mild, brother's
Love—just as before.

Silva. Commerce values the
Gold, that our people hid in Spain
From the Inquisition, and which they brought
Hither, when cursed and driven out of Spain
And Portugal. And, would you comprehend
Still deeper? they permit us to keep our
Own way here, in this Amsterdam, upon
Another ground. Laugh now, Jochai—yes! yes!
These Christians are shrewd, but the Jew, Silva,
Sought it out, and made it clear, wisely to
Make use of it.

Jochai. [*Laughs constrainedly, and accepts De Silva's proffered hand:*
And in *this* humor I
Find nothing changed in you, Silva. Still the
Physician, the master of nature, the
Ornament of science in Amsterdam!
One to praise with gratitude,
Who has still not forgot his first, nor his
Second rules of logic!

Silva. And it is well
For every one to do so, who thinks to
Learn. I hold this with Aristotle, who
Also—

Jochai. *(Interrupting him.)*
But you wished to speak of the Jews.

Silva. Well, well! If this Republic of Holland
Does not hate us, nor is cruel to us,
As the people of Spain and Portugal were;
If they willingly follow after us,
In trading on the Rhine, and on the Don,
I think it is, first, because these Dutchmen,
Stolid as they are, reverence their Bible,
And draw all their religion fresh from the
Fountain head. So do we; and in the deep
Darkness of the Pagan ages, *we* have
Guarded, like a sacred, ever-burning
Lamp, the faith in one only, invisible
Almighty God. So they honor in us
The guardians of this revelation of

The promise of the Messiah. In us
They honor the sons of David—David,
From whose stem their Holy One was to spring,
And who, truly, they think, was also a *Jew*.
And another fact pleads always loudly
For us, in this sluggish land, the blood of
Young freedom poured forth in the provinces;
Now, any people who have suffered base
Servitude themselves, know well its sharp
Bitterness, and, therefore, they will never,
Out of blind prejudice, persecute us,
Fellow-sufferers. The Netherlanders
Beat their own swords, painfully, out of their
Heavy fetters, and out of these victorious
Crowned swords they will not forge again chains
Of slavery to bind others! Never!
Truly, no noble people could do that.
This is the second ground of forbearance;
And is it not true you felt yourself blessed,
When you turned homeward to this Amsterdam?

Jochai. Indeed I did. Full of hope I climbed the
Mountains below, to the island, and found
A vessel that slipped quickly through the long
Canals—easily—

Silva. —*Joyfully*, to think
Of returning home, as you approached near
To your Judith! I understand it all.
She would scarce trust her eyes, I well believe,
When she embraced, so soon, her friend, her long
Affianced husband. You come now from the
Villa of Manasseh—is it not so?

Jochai Allow me to sit down and rest. *He sits down.*

Silva. *(Aside)* Ah, strange!
He appears overcome! *(To Jochai.)* What ails you?
Speak!

Jochai. Three long days has Manasseh honored me
With his accustomed hospitality.

Silva. And Judith, your bride, you were betrothed in
Your cradle by your parents. She was called
Already yours in the soft lullabies
Of infancy, sung by her aunt at night;
In all your youthful games she was your queen;
What a lovely flower she is! I dare to
Praise her, for you know that she
Is, also, the daughter of my sister.

Jochai. "The lullabies of her aunt!" Oh, Silva!
I fear her neice will give to *her* the lie.

Silva. How? What mean you, Jochai?

Jochai. Listen! Let me
Tell you what I saw. I lay overcome

In Wanderstraten's arms. He called me "son,"
And lauded Judith's truth. Then instantly,
His mind turned upon his beautiful house,
Upon his park, upon his fountains, upon
His statues, that he had copied from the
Antique, in Florence, and Rome, and Venice;
Upon Rubens, and Vandyke; upon light
And shadow; upon perspective. Now, you
Know how he, with his Midas-hand, is still
Accustomed to gild everything that to
Him belongs.

Silva. *(Aside.)* Instead of gold, he very often drops copper.

Jochai. You remarked?

Silva. Nothing!
I was reckoning only the alloy
Of such a Midas-finger. Go on now;
I am no friend to his great lordliness.

Jochai. The Exchange likes not his caprices, either.
Enough! I, who in Rome, Paris, Naples,
Have seen all that Manasseh, out of this
Holland's marshes, wearies himself to bring
Forth artistically; this temple of vain
Glory was faded for me, which his weak
God-head had built itself. I sought Judith
With hot longing; I hastened through every
Shaded pathway in the park, and with the
Ardent desire awakened by long absence—
A separation of nearly two years—
I found her at last, but I found her not alone.
[*Springs up from his seat.*
A stranger sat by her in a
Grotto of shells; a wild, thick ivy vine
Draped its entrance; a large roll of parchment
Lay outspread before the silent pair. I
Approached nearer. At first Judith seemed
To desire to drive me back, as if I
Was a novice drawing near a temple's porch,
By a severe, angry glace. But soon she
Knew me, and with frightened eyes,
Changing her pallid countenance by a lie,
She reached her cold, trembling hand out to me.
My silence demanded who the stranger
Was. "My teacher," said she—high and scornful;
And, as if explaining to *him*, she show'd
Me, saying, in weak echo, "This is my
Betrothed!" All pale, the stranger rose, dropp'd her
Hand out of *his* right hand. He was holding
It; and I, as if palsied and struck still
With fever, tried to man myself to ask his name.

Silva. Well, he is named Uriel Acosta!

Jochai. Ha! So you do know him, too?
I do not dare to wonder in my soul,
That you should know him! The servant's mouth, and
Manasseh's sidelong glance—the park, too, where
Each statue encourages such weakness—
Your niece has broke her faith to me, Silva!

Silva I listen to your words astonished,
And what you describe. Yes, it is very
Probable—it might—I believe that—it
Might have appeared very strange to you,
But you are mistaken in your premises—
Judith's coldness is not love for him—for
Uriel Acosta—no, no. In silence
I have watched this thing grow. A young thinker
Who has applied himself to the study
Of truth, has become very famous in
All countries, as a man of genius—not
As a master. I, myself, now truly
Value his style of writing—not what he writes—
The sweetest tones of Oporto slide
Pleasingly from his tongue Yes, as if he
Had but yesterday last, plucked the Tajos
Grapes from off the sunny trellises. He
Writes the purest Portuguese! Still, without
Doubt, his heart is full of love for Judah.
Mamri's terebinths are strange, tho' to him
He never saw the Lord's semblance in the thornbush!
Yet still, he clings to his blood and brethren;
He stays far enough away, though, from the
Synagogue. He seems half Christian, half Jew;
He floats in the clouds, a dreamer, vaguely
Carries doubt up to the throne of faith, and
Through accident, drawn near to Manasseh.
His daughter thus, not with the net of love,
No, but with his thinking, so straightly, he
Has entangled, that now, she believes herself
Better than other creatures, and so she
Despises custom, and disdains her heart.
You will have to take her as she is—she
Will change, when she becomes your bride, I think.

Jochai. To be remarkable, and to be loved
Is synonymous with any woman.
The more celebrated, the more one's loved!
I will stand in no man's shadow,
And thus winnow for him the highest praise
Manasseh, I know, is a weak, vain man,
Without strength of will, or any judgment—
You are the soul of the family council—
Go to him—call together your kindred;
Your aunt, your sister-in-law—summon, then,

Uriel Acosta, as son-in-law !

Silva Too violent, Jochai !

Jochai. Is the other
More valuable to you as relative ?
So ! take him then !

Silva. What are you thinking of
My son ? You speak now of my enemy !

Jochai. Of your enemy ? What say you, Silva ?

Silva. I envy not mine enemy, I do
Him no evil, and I grudge him no good ;
Still, I may not be the flatterer of his
Happiness, and still less can I enter
Into bonds of relationship with him.
It is but a few days since appeared from
Uriel's pen a book in which much that
I earlier had written in respect
To matters of faith, is madly attacked,
Sophistically, and he attempts to
Overthrow my proofs ! My pupil he was
Once, and now, he assaults his master ; thus
This book separates him from his people ;
Separates him from his religion,
And also from *me !* Yes, also *from me !*

Jochai. Then let us work together, DeSilva !
I love Judith ! Yes, I feel this, once more
Beholding her, I love her still, even
More ardently than ever ; this cloud must
Fade between her and my happiness, and
My sacred right. I am ashamed to beg
For these—Silva, will you be my tongue's good
Interpreter ? Speak then, for true pride seeks,
Out no word of pleading for itself. See !
It grows dark, you must need rest after your
Long day's work, so I'll leave you now.

Silva. You go !
But this information ! no, no, you must
Give stronger evidence than this for me
To suspect— [*He sees a servant enter.*
What do you want ? [*To servant.*
Wait but a moment ! [*To Jochai.*
Now, what is it you would say ?
What ?

Scene II—Servant, the same, Uriel.

Servant One of your ancient pupils, whom I, in
Former days, remember, craves but two words
With you. I know you loved him, so I have
Allowed him to enter.

[*He steps back, opens the door for Uriel, then goes out. Uriel walks forward.*

Jochai. *(Aside.)* It is he!
Silva. *(Aside)* Acosta!
Uriel. Do I interrupt you now?
Silva. *(A painful pause)*
Do you come to DeSilva,
The physician? Be welcome then, to him;
A physician dares not reject even his enemy.
Uriel. His enemy, DeSilva!
My *master*, I come simply to greet you
A farewell, e'er I depart forever.
Jochai. *(Aside.)* Depart?
Silva. *(Introduces Jochai.)*
Ben Jochai! Do you know him then?
Uriel. *(Shortly.)* We know each other.
Jochai. *(To Uriel.)* You surprise me! How!
You intend, you said, to quit Amsterdam?
Uriel. From whence thou camest, Jochai, thither I
Go; and the earliest morning beam of
The morrow sees me on my sad journey.
I must see the world; I must see other
Nations; and because I would bear with me
Farewell blessings from all I love, I come
To you, DeSilva! Here, receive my hand.
[*Silva thrusts it back.*
Silva. The hand, which even but now, all that I had
Investigated with most zealous care,
Has cast out, as I would cast a stale drug
Out of the window. No!
Uriel. DeSilva, I
Have already told you, I come not to
The physician—to the thinker, Silva,
Have I come, and if I am not sound in
Thought—a point I dare not weigh now, nor boast
Myself to be—you know what is needful
To heal me! The sick soul must help itself,
No one else can medicine it rightly!
Silva. You sat once at my feet; I taught you what
Thought was, and now you strive thus against me,
Your master!
Uriel. You startle me! Can a man
Teach "thought," Silva? Are there
Masters and scholars in the loftiest
Wisdom, where every true teaching, must be
Generated out of our deepest nature,
As the flowers once sprang out of Ajax's
Heart's blood? I have endeavored to light up
And illumine, with the poor torch of my
Understanding, our old cobwebb'd, glorious
Edifice of learning, built half upon
Scripture, and half upon tradition, grown

Up from the earth of holy and profane
Books Not in the vain delusion to find
Truth for all. Ah ! no ; only let me
Speak of my own folly ! only so to
Relieve my own blindness ; only my own
Ignorance ; to unveil it ; only mine,
Mark that well, DeSilva ; only my own,
That we believe through ourselves, alone, can
Man believe with us ! Faith only conquers !

Silva. In your place, I would go to the Christians.

Uriel. DeSilva !

Silva. Then may God pardon the Jew.
Who throws shame upon the faith of his fore-fathers !
The very noblest, the best now
Among us are shocked by what you have
Written so against our old traditions !
The Synagogue has a sacred right to
Our living veneration for its
Dogmas—and in the right, where we have so
Enthron'd ourselves, the right of sacrifice,
Of fire offering—fanatical—as
You call it, almost the last we still hold,
Which ascends into the air, the smoke of
A burnt offering to the praise of Adonai,
(Who deceives us in nothing,) here come you,
With your youthful freedom, to probe therein
And destroy what has been to our people
The rock-fast anchor of Hope ! No, no ; more,
Why, even if my own wisdom—if my
Intellect, in its flattering self-sufficiency,
Had said to me, "This is rotten and dead,"
So may the Almighty aid me, I would
Still treasure it ! I would cling still to the
Dear delusion, as a man does to an
Old servant, who has been true in sorrow,
And whom he would not in prosperity
Repudiate ! No, you are no Jew now.

Uriel. What I chiefly reverence in you is
Your heart ! Rash are you in your love—rash in
Your hatred ! But a noble soul reveals
Itself even in your very errors.
You have skimmed but lightly o'er my pages.
Read them, and keep back nothing, that anger,
Believing as you do, may judge of them.
But in kindliness of heart I am
Come hither to bid adieu, not to your
Hatred—not to the weak temper of my
Silva—not even to the thinker—no,
For after all, no whole thought, no entire
Sensation, is any more or better

Than a twilight of truth ; it is not all
Sunshine ; neither is it all gross darkness ;
—Only to bid you, peacefully, adieu,
Silva ; only to breathe farewell to your
White hair. Farewell ! I fear we meet no more
In this life.

Jochai. *(Interrupting.)* Pardon Acosta, that I
A word, which you have not considered me
Worthy of, now permit myself to say,
If I can serve you, anywhere upon
This journey, with our kinspeople—

Uriel (*Rejecting his proffer.*) Too kind.

Jochai. Command, I entreat. Do you go to Paris ?
A letter from our house here will open
For you many a golden palace, and
Even if you think in London's whirlpool—

Uriel. I am going to the south—perhaps to
Germany. Do you know Heidelberg ? I
Want to seek a quiet valley somewhere,
Where I can quench my thirst from a cool spring,
And where there are green grasses, and flowers ;
Where, when my tongue would speak freely, I can
Hold arguments with the wood-birds only.

Jochai. (*Aside.*) I breathe once more !

Silva. And Judith lets you go ?

Uriel. And Judith ! Why do you ask that ?

Silva. Is she
Not the true disciple of your wisdom ?

Uriel. She goes now to enter into life's great school.

Silva. That is the best school for such women.
Ask, now the learned bridegroom of your fair
Scholar, if he does not think this also.

Uriel. (*Turns to Jochai.*)
No, Jochai, self-denial remains still
A beautiful kingdom for such a soul !
Put out all the waxen candles that you
Would illume to the lighting up your great
Marriage-feast. Judith needs nothing of such
Idle glitter ! needs no silver for her
Modest meal ; needs no golden chalice for
Her drink. Amid all the luxuries of
Her father's wealth, she has learned the joy of
Renunciation, to be sufficient
For herself. Behold my wisdom in this !
[*Forgetting himself.*
But if you wish to surprise her—if you
Wish to shelter her 'neath a canopy
Of gold—if you wish to scatter 'round her,
Like lavished perfume, all the joys of life,
Then she is worthy of it. She fell from

Heaven hither ; this earth has no portion
In her lovely frame. She is a treasure
Buried here below—a seraph that has
Taken a caprice to present herself
As mortal—as if she belonged to us—
The hand that piles up masses of rich gold—
Proudly, contemptuously—can honor
Her in nothing. Jochai, I must beseech
You, cherish her, as a man cherishes
His holiest. Oh ! let me go ! A glance
Upon all that remains behind for you,
Cannot lighten the burden of parting
For me ! So, God be with you.

[*Turns to quit the room.*

Scene III.—The back door opens; two servants of the Temple enter, each holding aloft a huge lighted wax candle ; they follow the Rabbi Santos, who holds a book in his hand.

Santos. *(Aside.)* Acosta!
Silva. *(Aside.)* Santos!
Jochai. *(Aside, contemptuously.)* What a procession!
Santos. Stay, Acosta, that you may now, yourself,
Explain the message I bring De Silva.
Silva. What message ? Rabbi, what mean these great lights ?
Santos. Burning before the dark night is here ? Yes,
De Silva, this light, burning in the clear
Sunshine, is the reason of Acosta,
That wishes to be brighter than the pure
Revelation of our great Adonai!
Uriel. So, two petty candles seem *suns* to you!
What am I to do here ? What do you wish explained ?
Santos. This book, Silva, the Synagogue
Sends to you, the wise, the most learned master
Of our faith, and of faith's holy sources!
Hear the command of the congregation.
You shall prove this book with honest and strict
Examination—not according to
The formalities of philosophy.
No! you must examine only whether
This teaching is in consonance with the
Talmud, or whether he, who has written
Such a book, who has dared to write it, still
Among Jacob's sons may be numbered!
Or longer be permitted to claim his
Portion in the promise. This, the message!
Silva. As much as obedience will honor
Me—so great is your praise in bringing such
A message.
Santos *(Pointing to the candles.)*
These lights represent the soul

Of the author of this irreverent book.
The Synagogue desires honestly to know
Whether they may yet longer shed their rays
Unclean, amid the pure sea of light of
The congregation. See! here's the book!
In seven days the Council of Three will
Receive your answer, and if you decide
To give it, then assure me of your full
Readiness by written words. 'Tis all!

[*Silva takes the book, opens it, and cries out, as he recognizes Uriel's work.*

Uriel. Say it out, aloud, De Silva! Say it
Freely; I am he, who's soul's light your blind,
Zealous priests threaten to extinguish thus.

Silva. You are the accused one, Uriel!

Santos. Speak you to him in tones of sympathy!
This book must be to you only a book;
The *author* is *unknown* to you, Silva.

Silva. (*To Santos.*)
Walk in here Two lines shall be security
To you for the fulfilment of this most
Grievous, wounding task! Acosta, a true,
Merciful God, sometimes gives a man in
His poor, trembling hands the reins which are to
Govern his whole life—to make his future
Or to destroy it. But it is harder
Still to find oneself substituted as
A strange Providence, a stern destiny,
Instead of our great, All-wise Judge, ruling
Another, whose fate we thus are charg'd with.
It sorely grieves me, Acosta, that I must
Now, perforce, obey reluctantly this
Summons of our rulers, yet I do God's
Finger recognize in this command from
Them. This book is sent me by my people—
By Israel. I go to examine
It, then, by the Talmud—by the Thora!

[*He goes within—Santos and the servants follow.*

Jochai. You seem troubled, Acosta! What is all
This to you? When a man is on a far
Journey, a distant event flies away
In the blue air behind him as he goes.
You will be where other tongues are spoken,
Where other customs bend men's spirits 'neath
Another yoke; then all they can do to
You here—in brief, all they *dare* to inflict
Upon you, will ring in your ears like a
Fable, that will not be able to fret
Or disturb you. Farewell, take good hope, and
Good spirit with you on your long journey. [*Goes out.*

Uriel. (*Alone.*) You think if I banish myself in some
Distant valley, love will turn to you. Ah!
Because, like a coward, I would spare her,
Judith, and myself, this battle with our
Hearts, shall I also fly from a battle
For my intellect? No, no; that would be
Unmanly. The truth shall be proclaimed,
If I dare not reach to the highest joy,
The sweetest happiness, why, then, the peace
Of soul, which truth alone can give, shall still
Sustain me under the widest scattered
Curses! If my heart must break, I will stay!

[*Goes out. The curtain falls*

(To be continued.)

ART. XI.—MAN AS THE COTEMPORARY OF THE MAMMOTH AND THE REINDEER IN MIDDLE EUROPE.

TRANSLATED BY C. A. ALEXANDER, FOR THE SMITHSONIAN INSTITUTION,

From "Aus der Natur: die neuesten Entdeckungen auf dem Gebiete der Naturwissenschaften." Leipzig, 1867.

All caves in Belgium, France, England, etc., which were easily accessible, and provided with a sufficient opening, were inhabited. In the middle was the hearth, paved with sandstone or slate, and around this the family gathered during the season of intense cold. There were caves also, which being too much exposed to the weather, served only as a dwelling in summer. Such occur in the south of France, and are destitute of any traces of a hearth, though otherwise affording the clearest evidence of having been inhabited by men. Are we justified in concluding from this, as Professor Owen has done in regard to the inhabitants of the cave of Bruniquel, that mankind in the reindeer era devoured the flesh of animals raw? It is not, however, in caves alone that we find traces of the habitation of men. Numerous dwelling places have been recognized, especially in Perigord, which were established under the open sky, in the neighborhood of water-courses, and sheltered by a sloping bank or overhanging rock. Here have been detected layers of ashes, bones which have been crushed, weapons, implements, and even the crude essays of a primitive art.

For clothing, at this era, man had recourse to the skins of animals. That these were stripped off for this purpose there is, singularly enough, adequate evidence still in existence. Incisions made in certain bones, and particularly in the skulls of reindeers close to the antlers, can only be supposed to have proceeded from the act of flaying. Numerous instruments everywhere collected, and which

could have served for nothing else but scraping, show that the hair was in some cases removed from the skin. Means were probably known for making the hide pliable, so that it might serve for clothing in summer, while for winter vesture, the fur would be preserved. We can of course know nothing as to the fashion in which the man of the reindeer age shaped this clothing, but we are at least certain that sewing was employed in preparing it. Bodkins or awls for making holes in the hides are not of rare occurrence, and needles furnished with an eye testify plainly enough to the practice of sewing. We know also that for thread the sinews of ruminating animals, especially the reindeer, were employed. The long shank-bones of these beasts often present a transverse incision, just at the point where the lower end of the great tendon is inserted.

It may appear somewhat surprising that a taste for personal adornment should have insinuted itself among the hard necessities of such a state of existence ; yet such a taste there was, if of a very humble description. Bracelets and necklaces were then worn, sometimes composed of strings of shells, as well of fossil as still surviving species, sometimes of the teeth of different animals. The ivory-like part of the ear-bone of the horse is also found piercod, probably with a view to being worn on the neck. The canine teeth of the greater carnivori (tiger, wolf, lynx) were often pierced for the same purpose. On the tooth of a bear has even been found the carved representation of a bird's head. In fine, from the old dwelling sites of this period have been gathered pieces of fluor-spar, jet, silex, and copper ore, all alike perforated in the centre, besides other objects which have a semblance of having served as amulets. The cave of Chaleux, near Linant, in Westphalia, has furnished 54 shells of fossil testacea, which it is clear can only have been brought from Champagne, where it is probable they were picked up by the ancient Belgians when they resorted thither for silex. Most of these shells have the central perforation, which denotes their destination for the toilet ; no very costly ornamentation, it is true, but something foreign and exclusive, and not to be obtained by everybody.

The weapons and implements were in the reindeer period of an improved construction when compared with those of the age of the cave bears. The weapons consisted of lances and javelins, but the stone points of these were more finely cut. The arrow-head of stone, without barbs, was not discarded, but a preference was given to arrows made from bone, or the horn of the stag and reindeer, and elaborated with more art and diligence than those of stone. Some of these have been found, which are furnished with barbs on both sides, and specimens occur in which the barbs are hollowed out, as if for reception of a poisonous substance. The number of barbs is from four to six, ranged alternately on either side. Lartet has discovered in Perigord a dagger of reindeer's horn, on the hilt of which is to be seen the rudely carved image of a reindeer The points of arrows and lances thus furnished with barbs may have served alike for the chase and for fishing. We know that in the hands of the South Sea Islanders and the Esquimaux these barbed points, however clumsy

they may seem, are no despicable weapons on land or in water. Very numerous are the utensils and implements found in the caves and at other primeval dwelling sites of Perigord and Belgium. First among them may be mentioned small saws, being plates of flint, dexterously notched or dented along the edge. This instrument was used to divide the antlers of the reindeer, a circular incision being made with it in the horn, which was then broken. Knives or blades of flint, generally small ones, are everywhere plentiful, as are also implements for scraping. The stone hatchets, on the other hand, have almost disappeared. A block of quartz has been found, which probably served as an anvil, for it still bears the trace of blows with the hammer. Among objects prepared from other substances we distinguish awls of bone, and needles of bone, horn, and ivory. Both instruments have been found in different places. There are, besides, instruments for smoothing, such as are in use among the Esquimaux to press the seams of the skin worn for clothing. Spoons of bone or horn also occur, set off with a primitive ornamentation, and used probably to extract the marrow from bones. We find, further, hunting whistles pierced with a round hole, and formed from the first joint of a deer's foot; also knuckle-bones, used, as now, in sports and games, together with many other objects, whose purpose has not been determined.

Among the stone instruments particularly worthy of note are the augers or gimlets which were employed to bore larger or smaller holes in bone or horn. When teeth and bones were first found, now presenting needles pierced with a small eye, and again containing holes as much as an inch in diameter, and these quite round and thoroughly perforated, explorers attempted to produce similar holes with the usual stone implements; but in vain; the points splintered, and no such hole could be wrought. There were English philosophers who asserted, especially in view of these failures, that perforations of this sort could not be made without metal. Now, M. Lartet has discovered certain implements of flint, large as well as small, whose points, instead of being made sharp, are roughly cut, so as to form angles not unlike those of a crystal. It occurred to him that these had served for drilling the holes in question. He therefore fixed one of these pieces in the cleft of a stick split for the purpose, and by dint of turning it between both hands to and fro, found that it performed the work of boring with great success. The communication of this fact has satisfied scepticism as to the destination of these instruments, which are found in considerable quantities and of different sizes.

At Tayac and Eizies have been found pieces of quartz, either round or quadrangular, which have been hollowed out in the middle. M. de Vibraye conjectures that they were used for grinding grain, but most of them are too small to have served for this purpose. M. Lartet is of opinion that they were made use of in kindling dry wood by rapid attrition.

The people of the reindeer era manufactured by hand, and without the help of the potter's wheel, a sort of rude earthenware of a black,

gray, and yellow color, all tinged more or less with red. The clay was commonly mixed with quartzose sand, the better to withstand the action of fire. A circular mark formed the sole ornament. These imperfectly baked vessels, of which only fragments have been found, are not, however the oldest specimens of the fictile art in existence. Traces of it have already been discovered in three grottoes of the cave-bears. In the earliest times man would feel the necessity of providing a supply of water in his cavernous dwelling. A cavity in a mass of clay would be the receptacle of the water brought in skins from the brook. To render utensils lighter, superfluous parts would be removed, and it would be dried in the sun, in order to harden it. Still later, man learned to mould rude vessels, which he exposed to the heat of the hearth to procure a degree of hardness greater than that produced by the sun's rays. Such were the humble beginnings of an art whose finished performance surprise and delight us in the fabrics of Dresden and Sevres.

III. It is now known that the populations of the reindeer era were not wholly destitute of a certain plastic culture and of the art of delineation. If the forms of most of the instruments of horn which have been found are susceptible of explanation from the instruments which have been used at later periods, such is not the case with a class of objects whose signification and use has not heretofore been unriddled. These consist for the most part of the entire stem of a reindeer's antler, frequently with one or more prongs, especially that next the root, always smoothly polished and at times charged with a simple linear ornamentation. But in the generality of cases these stems, more than a foot in length, are furnished with holes, which to the number sometimes of four, are seen ranged one after the other, while the whole length of the stem is ornamented with curiously carved lines and figures, among which horses and reindeers are particularly numerous. In the International Exposition of 1861, among the objects sent by the savages of Vancouver, figured just such a staff, polished and bearing engraved lines ; probably an ensign of command or rank. Might we not assign to the ancient staff the same signification, and consider the holes and figures as bearing, in their number and size, some relation to the circumstances of the owner?

We have thus arrived at the most striking of these relics of a remote antiquity, for from no other source probably can we derive such distinct ideas of the life and habits of the reindeer hunters of southern France as from the remarkable representation of the animal world which we find engraved chiefly on these remnants of reindeer horn, but sometimes also on pieces of bone, ivory, or slate. Thus far, indeed, and until further indications offer themselves, we must ascribe the practice of this primitive art solely to the population who, within a circumscribed space, inhabited Dordogne. The representation of real objects for the purpose of ornament is, in this case, the more remarkable, inasmuch as in far later times, those namely of the pile construction of Switzerland and the stone age of Denmark, no trace of such an application of art is to be met with ;

on the other hand, however, indicative in form of a certain degree of taste, the ornamentation of these later ages is altogether confined to a combination of different lines, of angles, circles, zigzags, etc., and never consists in an imitation of either animals or plants. We should certainly have obtained a much clearer knowledge of the social condition of men in the time of the pile-structures if we possessed in reference thereto representations similar to those which the reindeer caves of Dordogne have supplied ; for if these convey to a certain extent illustrations of the hunter and fisher life, the pile-builders, had their art taken the same direction, would doubtless have bequeathed to us images, carved upon horn, or other material, illustrative of their husbandry and domestic industry. This difference can perhaps only be accounted for through the original genius of the races, as it can hardly be supposed that in the narrow district of Perigord a particular population should have flourished, together with the whole northern fauna, as it were upon an island, and only at a later period attained that higher degree of art which distinguished it ; and the less, as cotemporary deposits from other caves show nothing of the sort. Thus the museum in Geneva contains a truncheon of horn from a grotto at Saleve, which marks the eastern point of the reindeer caves ; and this instrument, while it is bored through the end, and the general workmanship is the same as in Perigord, nowhere exhibits any other than the common linear ornamentation of the period.

It is a fact worthy of note that in all the figures yet found, no plants, but only animals are represented. This circumstance may not be without its significance in the absence of all proofs of a vegetable diet on the part of these huntsmen of the reindeer era. Yet it is to be observed that this defect of vegetable forms plainly harmonizes with a certain vivid feeling of the artists for the representation of movement. Animals stationary or in repose are extremely rare. Reindeers, as well as other animals of the deer species, are shown in rapid flight, as testified by the head bowed back upon the neck, the outstretched legs, sometimes by the gaping mouth and panting nostrils ; at other times they are represented in the act of springing, with the fore legs bent back beneath the body, the hinder legs stretched stifly out behind. The climax of this infant art seems to have been reached on a sheet of slate in the possession of the Marquis of Vibraye, which is plainly intended to represent a group of fighting reindeers. One of these struggles while lying on its back with its legs in the air ; another draws itself together as in the act of onset ; a third, with head sunk down, has evidently just overthrown the first.

(To be continued.)

ART. XII.—THE FACTORY SYSTEM.

We borrow from the New York *Day Book* the facts which follow in regard to the operations of the cotton factories in Lowell. From these statements it would appear that the comfort, and certainly the usefulness, of many of our unemployed citizens would be promoted by the establishment of similar institutions throughout the cotton States. The reporter of the *Day Book* says:

The Merrimac Manufacturing Company's Mills are the mills to be seen in Lowell. That is, they are the most extensive works in the place, employing a capital of $2,500,000 ($500,000 more than are invested in any other enterprise,) and forty-one hundred working people. I was indepted to General Butler for a note of introduction to the agent of the Company (General J. C. Palfrey,) which secured me, on the following day, a free pass and permission to wander unattended at will from top to bottom of the building and through the yards owned by this formidable corporation.

Five mills, besides the calico print works, stand on the Merrimac Company's grounds and inclose a system of machinery embracing a hundred thousand spindles and twenty-five hundred looms with their attendants. The water-power of the canal, which is availed of by ten enormous turbines, is not, as it appears, sufficient to keep this ponderous machinery in motion. Steam power, equal to the strength of two thousand horses, is therefore provided, an engine alone being capable of performing the work of eleven hundred horse pulling their best. The roar and rattle of the mills was deafening, appalling. It penetrated out through the thick walls, making the very ground in the yards to tremble. As I climbed stairway above stairway to the highest loft of one of the mills, the whole structure, solid as it was, seemed to sway.

The cotton is "picked" by coarse machinery in the attic; transferred to the rooms below, where it is more finely picked, separated from dross, and carded; transferred still lower, where it is spun into coarse threads by myriads of spinners; when, after being "dressed" and "pulled" through a maze of varnished eyelets in another building, it is ready for the looms. The initial picking process in the loft is superintended by a few men who heap the cotton by armfuls into the machines.

STAPLE OF LOWELL.

How many of these people earn their living in the mills yonder? (It is six o'clock; the light in the factory windows are still blazing; they work late.) Thirteen thousand four hundred and ninety-seven—nine thousand and five women and girls, and four thousand four hundred and ninety-two men and boys. And this does not include the employees at the smaller establishments. Perhaps twenty-five thousand persons are employed here as artisans and laborers the most of them in forty-eight huge factories of cotton, woolen, and iron goods. An industrious population! Yet the largest number are mere attendants upon a vast, complicated machinery, run by water wheels equal to 10,000 horse power, and steam engines equal to 50,000 horse power. The statistics are bewildering! Fourteen millions of dollars of capital stock are used here; the mills have five hundred thousand spindles and thirteen thousand looms; two millions and a quarter of yards of cotton goods, twenty thousand yards of woolen goods, thirty-five thousand yards of carpets, twenty-five hundred shawls, and six thousand dozen pair of hose are manufactured every week.

BOARDING HOUSES.

General Palfrey was so good as to inform me briefly in the following wise:

"Nearly all the manufacturing corporations here own lands adjacent to the mills, upon which dwelling and boarding houses are erected at the companies' cost. The dwelling-houses are leased to the officers of the companies. The boarding-houses are leased to landlords or landladies with whom the companies arrange for the board of a certain number of operatives, or for the price of board of each operative. The price of board is determined between the companies' agents and the landlords and landladies, as, also, are the variations of the price which may result from the stringency or the ease of the times. The operatives have, therefore, no bargaining to do in the matter. They simply pay the price which may be established, a price the most economical that can be maintained. The 'wages, clear of board,' which you find set down in the circular, are the average wages earned by the operatives clear of the price of board thus established. We find this the most economical and least troublesome way.

A keeper of the boarding house says:

"You can't expect to find Brussel carpets and fine chimney ornaments everywhere." She proceeded: "This is how girls live who have to work for it, and who may thank their stars and me that things are kept clean anyway. There's a specimen wardrobe, hanging against the wall. Look for yourself—dresses, night-gowns, underclothes, and all. Not many fine dresses, you say. Well, if that little trunk over there was unlocked and thrown open, you'd be astonished to see what is in it. Trust me; there ain't many girls who don't keep one nice suit stowed away to wear on Sundays and at parties, or when a gentleman comes to take them to a lecture. There are some who don't, to be sure. I've got some girls who haven't been out of the house after they came home from work since I can remember."

TESTIMONY OF THE OPERATIVES.

How do the toilers in the factories fare. What kind of a living do they make? What is their condition?

"Wages of females, clear of board, per week, $3 60 to $3 75."

"Wages of males, clear of board, per day, $1 20 to $2."

"Clear of board."

An operative says: "The wages which females get here are very low. The average ranges from three dollars and fifty cents to three dollars and seventy-five cents a week, exclusive of board. This is much better, I am told, than the lot of some of the working-girls in New York city. For the price of board is so regulated here, that we are supposed to get it at the cheapest rate that can be afforded. And very few girls, unless they are lazy, or dull, do not earn something more than their board per week—enough to clothe them, and, in many instances, enough to clothe them well, or enable them to assist their families."

I don't know that any of us ought to complain at all; for we are earning an honest living, and every one may, if she wants to, preserve her self-respect. Yet you do not need to be told how disproportionate the work that both men, and women do in the mills is to the wages that are paid. Still, the regulations are, in some degree, good and necessary. Where the influences of home are absent, and where so many young people liable to be led into temptation are congregated, there must be some discipline. If some of us are unduly affected by the discipline, we remember that patience is a virtue, and that we submit to rules that are established for the good of all,

The reporter resumes: "The conversation was continued several minutes longer, and served, from first to last, to strengthen the fibre of my respect for the young women who granted me their presence, and who accepted a lot that they had the intelligence to know was hard, with so much cheerfulness. Their pride did not suffer them to complain, or reveal one-half the straits of their condition; they defended what was suggested as cruel or unfortunate, and palliated what was indefensible. The immense wealth and facilities of the Lowell manufacturing corporations enable them to conduct their business on a vast, economical plan, to which their employees must be subservient. By providing boarding places for the operatives on their own grounds, as a cost for board lower than decent board

could be otherwise obtained, they are warranted in reducing wages to a lower rate than the operatives could subsist upon if they were forced to seek their living elsewhere."

The object of this report, is avowedly to show the wretched condition of cotton operatives. Yet it is not shown that the same persons would better off at anything else, for, of course, they must be otherwise employed.

We have no idea that operatives in our mild climate, with the abundant food of our country, would be under the necessity of complaining, as the reporter states of the Lowell operatives. At all events, we have an unemployed population and raw material. Lowell takes it from our hands and quadruples its value, enriches her people, and supports her paupers. We are not to be deterred from prosecuting the interests of the South by special representations, and shall not be satisfied until we shall have made the experiment. Indeed, it has been already made. Georgia, the Carolinas, Alabama and Texas have tried it; every one is pleased with the result. No such moral mischief results as has been apprehended, and we trust this success will continue till every pound of cotton made in the South shall be woven by machinery in the South.—[Ed. Review.

ART. XIII.—DEPARTMENT OF AGRICULTURE.

THE STEAM PLOW.

The Agricultultural Commissioner thinks that, with the mass of incontestible proofs before us of the profit, utility and large employment of the steam plow in Europe, it is surprising that it has not been more widely adopted in this country. He gives several reasons for the assertion that this is the most favorable of all regions for its application, among which are the following:

Our working, or dry, seasons are longer; we have larger territory of arable lands and broader surface of level fields, with greater scarcity of manual labor and fewer working animals; hence are subjected to higher prices for labor.

"Steam culture," he says, "must and will become successful here; it is a necessity, and steam will yet be applied generally in all our agricultural operations."

The principal and undeniable advantages derived from the use of steam in plowing are summed up thus:

It will plow and cultivate deeply, cheaply, and rapidly, leaving a deeper, mellower and warmer soil.

Its rapidity of execution enables the farmer to cultivate a larger extent at exactly the time to secure the best product.

It excites greater activity and promptitude among farmers in other matters, and leads to habits of system and order in all their operations.

It substitutes artificial or machine power, always attainable to any extent, for animal power and manual labor, which are often unattainable to the needed extent.

It secures uniform seeding and ripening of crops, for the same engine can at

the time of plowing, also sow and harrow the ground by having power enough to draw all the implements at once.

With the stationary engine some spots can be drained and plowed and made very productive, which could not be cultivated with horses, for want of power, and footing on which to walk.

Deep plowing, by which a warm, dry, mellow soil is produced, is pronounced the real test of good farming, and this can be secured in no other way so surely and so cheaply as by steam plowing.

A farmer in France, who has been testing the steam plow, writes that he has used it in breaking up, 19 inches deep, land on a subsoil almost as hard as rock. The cost of breaking up this land by steam power was not more than one-eighth of the expense of breaking it up by manual labor, as it could not possibly be done by horses. He looks for "results still more advantageous."

The rough, stony portions of the chalk and stiff clay lands of England, where the undulations are from thirty to fifty feet, are now cultivated by the steam plow. Two hundred sets of the most improved steam plowing machinery now break up and plow, yearly, 300,000 acres of lands on the river Nile, which are planted in cotton, rice and sugar cane.

The manufacturers' number on the sets of plowing machinery imported into Louisiana in December, 1867, and now working on Magnolia plantation, is 918, showing that nearly a thousand sets of steam plowing machines had then been made by the house of John Fowler & Co., alone.

From a letter in the report of the Bureau of Agriculture we give the following paragraph, which gives some of the many evidences that the steam plow is peculiarly adapted to Texas:

"All market gardeners and the best practical farmers and cultivators agree that deep trenching or spade husbandry produces a much larger yield of crops of all kinds than any other known system, the chief advantage being in a thorough breaking up, loosening and perfect admixture of the soil. This desirable object can be accomplished much better and more cheaply by the steam plow than by the spade or any known implement. All English farmers familiar with the use of the steam plow, agree that the surface water will not stand upon lands broken up by this plow. On the sandy lands, near Cheltenham, England, the market gardeners, to prevent their crops from suffering from drouth, spade the ground from twenty to thirty inches deep. By this means, the lands which would be dried up in hot seasons, are not affected injuriously by dry weather."

THE CHINESE YAM.

Among the many good things which we are getting now, and are likely to get, hereafter, from China, is the famous yam that grows in the northern part of the "Celestial Kingdom," and furnishes most palatable as well as nutritious food to nearly 400,000,000 of human beings, who rarely if ever use animal diet.

All who have read the history of the potato, will remember the peculiar opposition that was long offered to its introduction into Europe. In some cases orders of court were issued against its cultivation, and it was said to poison the blood of those who used it. But all this folly passed away, and the potato now enters largely into the diet of every civilized nation on the globe. In its various forms it appears on the table of prince and peasant, and one whole people has, in our time, been saved by it from starvation.

Like the potato, the yam from China is likely to encounter some incredulity ere American or European enterprise can succeed in making it popular among the western nations; but its advantages are so great and so numerous, that business interest will speedily befriend, it. Like the beet-root, its value has only to be properly known in order to be fully appreciated where now it is neglected.

The Chinese yam is a native of the north temperate zone, and grows up to the higher limits of arable land. It is found in more than fifty varieties of size, shape and color, and yields perennial crops without replanting. It is easily cultivated, and flourishes in all kinds of soil, even those hitherto deemed barren and lying waste, while its extreme hardness enables it to resist the severest winter in the

open ground. It surpasses the potato in productiveness, and excels it in cheapness. It has a singular combination of the farinaceous qualities of wheat, and of the nitrogen contained in animals food, and is, therefore, so highly nutritious as to supersede the use of animal food with many persons. Moreover, it has a very agreeable flavor and thus escapes the drawback of insipidity.

This remarkable root will keep in the ground or above it without decaying for more than a year, if ordinary care be exercised, and the whole crop may be left in the earth, for that matter, during the entire winter.

Added to all these recommendations, is the essential fact that it yields abundant muscle, and good healthy blood to men and quadrupeds.

This vegetable treasure is added to the world's resources at the very moment when something of the kind is most needed to assist in providing cheap but wholesome, palatable, and especially strengthening food for the myriads of workers who are to develop and improve the vast interior of the American continent, and the spaces that lie between Europe and the more densely inhabited parts of Asia. Wheat and the potato have done vast service in their turn, and will probably remain a portion of human food so long as our race lasts. Now there springs up this new esculent—new to the Western world, at least—to supply the wants of vaster populations and a more active time.

The foresight and beneficence of the Almighty are chiefly seen in the apparently humble, yet really sublime adaptation of nature.—*N. Y. Journal.*

ESPARTO GRASS—NEW CROP FOR OUR RICE FIELDS.

Of this crop, the cultivation of which so little is known in this country, a South Carolina paper remarks: In the Esparto grass we are confident that there has been found another new means of adding to the strength and power of the State. One more golden opportunity is given us of proving that, with this glorious climate and this fertile soil, we never need depend for our prosperity on cotton and rice alone.

The Esparto grass of which we speak is already the succesful rival of rags, as a material for the manufacture of paper. It is no more difficult to grow than rice or hay; but it often brings in the markets as much as seventy dollars of our currency per ton. The production of the grass has increased with great rapidity, and it is now consumed to the value of about one million of dollars monthly on the continent and in Great Britain. New mills are being erected and fitted with machinery exclusively adapted to its use, while old mills are changing their machinery for the same purpose. These is no doubt that its general adoption is but a question of time.

In the United States, the Esparto grass is, as yet unknown; but the high price of rags and the failure of almost all materials—except, perhaps, maple wood—used in their stead for the manufacture of paper, which has now become one of the leading commercial interests of the world, will soon induce our quick-witted Northern paper manufacturers to try this new material.

As its name denotes, the Esparto grass is of Spanish origin, being now extensively grown in Spain, Portugal, and the French colonies in Africa. The cultivation of the Esparto is no more difficult than that of hay, and it brings three times the price. There is, then, but little doubt that it will be very profitable. This is the first point to be determined, and we are sure that in this State it could be grown with perfect success. The writer has not only seen the Esparto taken from the blade and put through all the processes of manufacture into fine printing and writing papers, but he has also seen the grass growing, and is confident that our climate and soil will produce it at least as well as the countries in which it is now cultivated.

The Esparto grass yields to the paper maker nearly as much pulp as average rags yield. It is no more difficult than rags to work up, and in many respects, although not all, it is to be preferred to them.

Thus, after two hundred years of experiment and the trial of a thousand different substances, just when the civilized world feels its necesity the most, a perfect substitute for rags has been found, and will be used wherever a book is read and the art of writing known.

It is for us to determine whether the Iberian peninsula and the north of Africa shall be allowed to monopolize all the profit of this new crop, or whether we who are in the same latitude and enjoy a more equable climate shall take advantage of our situation and make South Carolina produce the raw material to supply the paper mills of the United States, and perhaps of the ports of Europe.

We do not believe that the prize will escape our grasp, and we take pleasure in informing our readers that some enterprising gentlemen in Charleston have already sent to Spain and Algeria for the Esparto seed.

EASTERN COAST OF FLORIDA.

From St. Augustine to the south end of Indian river, is a strip of country that has been termed as marvellous for its capability of production as it is for its profusion of wilderness. Perhaps no part of the United States is so little known, and has had less attention drawn to it, than this part of Florida, and yet no part better merits the attention of the agriculturist, or offers greater inducements to the small farmer.

If our readers will turn to the map of Florida, starting from St. Augustine, they will observe the inlet east of the city. Going south along the Matanzas river, they will leave Matanzas Inlet to the left, and at the south end come to a strip of land separating the waters of that river from those of Mosquito Lagoon. This strip of land can be crossed, at its narrowest point, in about three and a half miles. The traveler then comes to the waters of Mosquito Lagoon, which followed southward, leaves Musquito Inlet on the left; presently a broad sheet of water bursts into view, and shortly he is at the south end of Mosquito Lagoon. Here he meets another narrow strip of land separating the waters of the Mosquito Lagoon from those of Indian river, and across which, a distance of half a mile, the United States' Government, during the Indian wars, constructed a canal. At this point let us pause a moment to observe that we have arrived at about the latitude of Cape Carnaveral, and that the conformation of the coast is such, that south of this the Gulf stream is pressed close upon the shore, while to the northwest it is thrown off by Cape Carnaveral. In consequence of this, rather than its lower latitude, one may established here the line of frost. This is borne out by the fact that in the winter of 1835, unparalleled for its severity, the orange and mangrove trees were killed by the frost to the northward but not to the southward; through the canal we enter upon the waters of Indian river, and on our way pass Indian Inlet, on the left, and subsequently another inlet and arrive at the lower end of Indian river, having traversed a distance of upwards of 200 miles, entirely by water, with the exception of about three and a half miles, and all inland navigation. It will be observed also that we have passed in that distance five outlets to the ocean. Along the whole line of this region of country, nearly all the northern fruits and vegetables grow and mature in the utmost profusion and excellence; most of the latter in the winter. We have seen cabbages four feet in circumferance. All the tropical fruits and productions are found south of the line of frost, and many of them north. Along this entire region, oranges, lemons, figs, bananas, pomegranates, grapes, cassava, arrowroot, indigo, cotton, both upland and sea island, tobacco, equal to that of Cuba, and sugar cane, attain a rare perfection and profusion of yield; while below the line of frost, coffee and all the spices, pine apples, cocoa-nuts, and all the tropical productions, are found in equal perfection and profusion. For the growth of sugar cane there is probably no part of the United States so well adapted, and at one time this region of country was almost a continuous series of sugar plantations, that were, however, completely destroyed by the Indians during the wars.

The American aloe or hemp tree, hickory, white and live oak, yellow pine, red bay (a species of mahogany,) lignumvitæ, red and black mangrove (the latter resembling rosewood,) cypress, red cedar, India rubber tree, and the palms, form its forests. Stock of all kinds are branded and turned into the forests to subsist themselves. The woods abound in game and the waters in fish. From its loca-

tion, productions, and the mildness of its winters, one is led to suppose that the heat of the summers in this region must be extreme and oppressive. This, however, is not the case, the thermometer seldom registering more than 85 degrees, and that temperature entirely modified by the refreshing coolness of the trade winds. None of the diseases incident to a southern or western climate are known here, and for consumptives, its mildness and extraordinary evenness of temperature offers inducements, perhaps, nowhere else to be met with in such perfection. Land can be bought at from $1 25 to $4 per acre, depending upon whether held by the United States' Government or the State of Florida.

As to theprofit of these lands, for example, let us take the cultivation of the orange, which is probably the safest and most productive, though not rendering the earliest return. Viz:

Forty acres of land at $4	$ 160 00
Clearing, planting 4,000 trees, and care of same for three years, with labor and interest	9,000 00
Total	$9,160 00
Products third year, being first year of bearing at one hundred oranges to the tree, is four hundred thousand oranges, which, at the usual price on tree, viz, 1 c	$4,000 00

The tree increases each year in its production until a fair average is 1,000 to a tree. With a climate and soil equal to the production of nearly everything that the earth can yield—with the fact that these productions can be shipped at your own door for any port in the world—why should not this much neglected region of country become, if not the garden of the world, at least the garden of the United States.

MULES FOR FARM WORK.

A correspondent of the Chicago *Prairie Farmer* writes as follows:

In East Tennessee, Georgia and Alabama, a pair of good mules, well broken, cannot be purchased for less than $400. In some cases $500 is paid for a good mule team. Back from the thoroughfares, in the interior counties, they are, doubtless cheaper. A good pair of horses can be bought for $300. This shows the estimation in which mules are held by people there for draft work.

They are tough, and will keep in good condition on feed that would almost starve horses. There can be no doubt about this. The labor they perform is cheaper labor than that performed by horses. It costs less; but the mule is not so pleasant, so agreeable a beast to have around as the horse. And right here is the rub with many farmers. They or their sons are ashamed of mules. They don't want to drive them to town or to church. From some cause or other, unaccountable to me, there is throughout a large portion of the North, a strong prejudice in the minds of most men against this useful animal. To be sure his bray is not the most melodious of sounds, but do we not often hear as unpleasant sounds as that coming from the sheds or the hitching rails where horses are tied near each other?

As for beauty, that is a matter of individual taste. I saw this morning a span of mules that came up to my idea of the beautiful, the harmonious in animal development as nearly as any horses I have seen in a long time. But this is a thing of very little importance, really; yet it is urged constantly as an objection to the use of the mule. "They are such homely, awkward-looking creatures, I won't have them around me; and they are mean about kicking, too."

Here it is; the same thing—prejudice. Where mules are fashionable no one objects to driving or riding them anywhere and everywhere. This is a matter of

habit—custom. When we are used to them, they seem neither awkward nor homely. They are remarkably sure-footed, and are always perferred to horses in dangerous mountain rides. They are also very strong. They can draw a heavier load than horses of equal weight. This is the rule. As to their kicking; they do kick sometimes. They may be more inclined or ready to acquire this vicious habit than horses; but with proper management while young, they will never form the habit. They kick at first in self-defense—they are afraid. Remove their fear by kindness, and there will be no more kicking.

But the trouble is, mules are too commonly made the butt of the ridicule and abuse of careless teamstears, who seem to be without even a spark of conscience. They are mauled and jerked, whipped and kicked, simply because they are "infernal mules." Unfortunately for this useful hybrid, and for farmers, too, who might turn him to useful account, he has come to be the acknowledged representative of stubbornness and mulishness. But, although he is given somewhat to strong-mindeness, yet, if we control his will it is no detriment any longer. I have known far less baulky mules than horses—animals that refused to pull when bidden. They are patient, long-suffering animals, and in an emergency can be relied on.

The same attention has not been given to the breeding of mules that horses have received. When they are bred as carefully, and are as well cared for while young, they will lose some of the characteristics so disagreeable to many people.

The Southern farmers, many of them, consider mule labor much cheaper than horses' labor, even when they pay a higher price for the mules. Now are they mistaken? Whoever says they are, let him please demonstrate it. In the North, mules are cheaper, and every consideration of economy seems to call loudly for their more general use on the farm.

Who can furnish the exact figures on this matter for the benefit of his brother farmers? Who has worked mules and horses at the same time, and carefully kept an account of the expense of keeping, value of labor performed, etc? Such evidence might convince some who will not otherwise believe. From my experience with and observation of the animals, I am thoroughly convinced of the advantage of mule over horse labor in many places on the farm.

Another important consideration in favor of the mule, is that he is longer-lived than the horse. He will live longer and serve his master more years. And this difference is considerable—probably no less than twenty-five per cent. He is seldom lame. He is not commonly affected with spavin or ring-bone, or any other ailment of his feet or legs. He does not often have the heaves. He does not so readily catch cold. He seldom has the "botts." It is doubtful that horses ever die from that cause, however.

The mule, in short, is seldom sick or lame. He is ready for work when work is required of him. Of course, he is not absolutely exempt from infirmities, but he comes nearer being that, perhaps, than any other domestic animal, unless it be his male progenitor. He is a good and servicable beast.

HURRAH FOR BUTLER COUNTY BOYS.

We are informed by Major Lanier that last year two sons of the Rev. Mr. Bennett, living near Garland, in this county, alone and unaided, raised a crop from which they realized the following:

Three thousand gallons molasses at 80c	$2,400 00
Four hundred bushels corn, at $1	400 00
Six hundred bushels sweet potatoes, at 50c	300 00
	$3,100 00

Besides saving enough cane to plant sixteen acres for this year. Can any of our cotton planting friends do as well?—*South Alabamian.*

ART. XIV.—DEPARTMENT OF COMMERCE.

THE GRAIN MOVEMENT.

The prospect of a route to market which will relieve the Western grain grower from the "ten tolls" now imposed between the farm and millstone has stimulated much effort. St. Louis sent an able and excellent delegation to New Orleans to confer in regard to this interest. The Convention now to assemble in New Orleans upon the same subject, is expected to show a concentrated purpose to open the Mississippi river to the fullest extent necessary. Indeed it is no longer a question but that there is a good margin on grain exported by the Mississippi river over that by way of the lakes and canals. There was a question of order, but the elevator and steam lines have shown that grain can go by this route as sound as by any other. We are, perhaps, singular in the opinion that the whole success of this enterprise now depends on organizing a through line of grain shipment from the up-river landing to the Liverpool wharves, so that a consignment can go through on time guaranteed, and at a rate of freight fixed and divided between the ocean and river craft. We are satisfied that when the river barge lines connect with, consign to, and pro-rate with lines of steam grain propellers between New Orleans and Liverpool, orders will be placed in this market to any extent. We do not believe there will be much movement until this is done, because just when the lakes are frozen, our cotton crop monopolizes the tonnage, and fixes so high a freight that the grain must await casual chances of exportation. Now, with a line of grain propellers working constantly, and at rates fixed by New York competition, a constant and steady exportation of grain may be maintained for six months in the year. We derive much encouragement from the following notes extracted from the St. Louis papers:

On Monday next the Mollie Able will commence loading at the Mississippi Valley Transportation Company's wharf-boat. That the Thompson Dean will next load there, and after her the Great Republic, is on the tapis, but not so clearly ascertained as the fact that the Mollie Able will inaugurate the new enterprise. That enterprise is the union of three large freight steamboats with the barge line, one to leave every Wednesday, and a barge tow to sail every Saturday for New Orleans.

The influence of the grain movement abroad is shown by the presence in the city daily of gentlemen having interests in lines of trade dependent upon grain exports from the country, who visit St. Louis to study the new course of trade. Among those present upon 'Change yesterday, we noticed the Messrs. Arthur and Charles Leary, of New York city.

The Messrs. Leary are enterprising ship builders in New York city, and visit St. Louis to examine for themselves the probable extent of our grain trade down the Mississippi, with a view of building a line of vessels especially adapted to carrying bulk grain from New Orleans to New York and to Liverpool.

The money difficulty has been solved by the agreement of our banks to advance on certificates of grain in elevator for shipment. Once organize the river and ocean lines, and there can be no further obstacle to grain exporting itself by this route, except some other route shall undercarry it.

ENGLISH TRADE IN FOREIGN GRAIN.

The Mark Lane *Express* publishes the annual grain statement of Messrs. Horne, Son & MacInnes for the year 1869. From this report we learn that the total importation of grain and flour into the United Kingdom last year was about 66,722,000 cwts. against 65,500,000 cwts. in 1867. The total estimated value, in the absence of complete Government returns, we set at about £38,000,000 against £41,364,164 in 1867. The number of grain cargoes on passages to the United Kingdom from South of Europe and America, etc., according to Mr. Dornbusch's latest accounts is 566, against 521 at corresponding date in the previous year, viz., of wheat 302 against 423, of barley 109 against 39, and of maize 98 against only 6.

In speaking of the consumption of wheat they say: Now, taking our population at fully 30 million souls, our flour consumption equal to 22 million qrs. wheat, our average wheat production at 14 million qrs., and that of 1868 at nearly 17 millions, it would seem to require a foreign importation of little over 5 millions qrs. wheat and flour to meet our actual wants up to next harvest. On the other hand, having begun upon the last crop a month earlier than usual, we must deduct, say, 1,200,000 qrs., and whereas the deliveries of English wheat since 1st August were fully three-fourths new, against usually one-half, we must again account for about 1,490,000 qrs.—say, together 2,600,000 in 5 months, so that we have already got rid of all excess of production. Then, as there is hardly any old wheat in farmers' hands, we have to make allowance for extra demand upon the last crop for the remaining 8 months; and, lastly, the consumption of wheat, (particularly of revitta) since harvest, as cattle and pig food, and for starch and malt, has also been considerable. Upon the whole, supposing the next harvest to be collected at about an average date, our farmers will then again have but small stocks on hand, and we think we can bear up against a foreign supply at the rate of 7 to 8 million qrs. per annum up to 1st September next, without reducing present prices.

The importation of wheat into the United Kingdom amounted to about 32,730,000 cwts., against 34,645,569 in 1867.

Although the imports of barley were nearly 2,000,000 cwts., more than last year, not only did none of it come from the United States, but Great Britain actually sent several thousand quarters for brewing purposes.

The importations of oats 8,202,000 cwts. against 9,407,136 in 1867. The bean crop was the poorest crop of the country, while peas are only reckoned at one-half a crop.

Her supply of corn as usual is principally from this country, though the crop in Southern Europe was of full average quantity. The quantity imported into the country was about 11,297,858 cwts., against 8,540,429 the previous year, and 14,322,000 cwts. in 1866—the largest amount ever recorded except in 1847. Importations of flour amounted to about 3,054,868 cwts., against 3,592,969 in 1867; in London there were received about 400,000 cwts., against 725,885 the previous year, of which France sent 2 per cent., America and Canada 43.50, Austrian States 8.25 and Australia 17.75.—*Prairie Farmer.*

A MOVE IN THE RIGHT DIRECTION.

Passengers arriving in this city in vessels from foreign ports have, under the old regime, been subjected to very great delay and annoyance by the system of examining baggage.

Vessels arriving after 3 o'clock P. M., have heretofore been compelled to wait until 9 A. M. of the succeeding day, before a permit could be obtained for the removal of passengers' baggage and a proper officer detailed to make the necessary examination as required by law. We are pleased to state that Collector Casey, appreciating the necessity for facilitating the transit of passengers and of removing useless obstructions to commerce and travel, has taken measures which will effectually obviate further inconvenience or delay, at the same time that the Government's interests will be as closely looked after as ever.

Hereafter the agents or consignees of foreign ships, or vessels touching at

foreign ports, upon being telegraphed from the Passes of their arrival, may make immediate application for a baggage permit, which will be placed in the hands of officers detailed by the Collector for this special service, who will remain on duty between the hours of 6 A. M. and 9 P. M.

This action is a move in the right direction, and gives evidence that Col. Casey is in earnest in his expressed desire to remove all those unnecessary restrictions, which have so hampered our commerce, and which in a great measure have been the cause of driving trade and travel into other channels.

STATISTICS OF CUBA.

Senor Lemus, the representative of the Cuban insurgents, now in Washington, has prepared in English some very interesting statistics of the resources of the island from the official records, from which is quoted the following:

The amount of trade carried on in the island at present is over $117,000,000 per annum. In 1862 the production of the island was $306,000,000; taxes paid in, $37,750,000; imports. $57,400,000; exports, $43,400,000. The rural wealth was then estimated at $361,000,000; wealth of towns, $170,000,000; industrial and commercial wealth, $774,000,000.

The Spanish population, including the army, was 150,000; Cuban white population, 750,000. Of these, 325,000 were women and 215,000 old people and children, leaving 210,000 able for the army. The negro population was 600,000, from which 50,000 men may be taken for the field. This, he claims, is a low estimate. It will be seen, however, that it gives them 260,000 men for the army.

The productions in 1862 were: Sugar, $62,000,000: tobacco, $20,000,000; other items, $37,000'000—total, $120,000,000.

MONTHLY MARKETS.

Compiled from the press of New Orleans and other cities, for DeBow's New Orleans Review.

NEW ORLEANS TO 21ST MAY.

COTTON—This staple has maintained a remarkable uniformity for sometime past, and we may anticipate that the rates will scarcely be changed until the indications of the growing crop, or the approach to maturity shall have a speculative effect upon prices. We must begin to look to the Indian and Egyptian crop prospects more, perhaps, than to our own, and rest content to accept the prices which the strong combination of spinners and capitalists shall allot us. Our stock received during the season is very encouraging, and agreeably disappoints those who, with ourselves, deemed the attractions of the Eastern routes to market more formidable than they have proved to be. We may report as follows:

NEW ORLEANS CLASSIFICATION.

(Assimilating to that of Liverpool.)

Low Ordinary	—@—	Strict Middling	28¼@29
Ordinary	24 @24¾	Good Middling	nominal.
Good Ordinary	25¾@26¼	Middling Fair	nominal.
Low Middling	27¼@27¾	Fair	nominal
Middling	28¼@28¾		

COMPARATIVE PRICES OF COTTON AT THIS DATE, WITH THE RATE OF FREIGHT TO LIVERPOOL, AND FOREIGN EXCHANGE.

Descript on.	1869.	1868.	Descriptions.	1868.	1869.
Low Ordinary	— @—	— @—	Strict Middling	28¼@29	— @—
Ordinary	24½@24¾	— @—	Good Middling	nominal.	nominal.
Good Ordinary	25¾@26½	27 @27½	Middling Fair	nominal.	nominal.
Low Middling	27¼@27¾	28 @28½	Fair	nominal.	nominal.
Middling	28¼@28½	29 @29½			

	1869.	1869.
Freight to Liverpool	⅜d.@—1.	⅜@ 7-16d.

STATEMENT OF COTTON.

Stock on hand September 1, 1868—bales		1,959
Arrived during the past three days	2,367	
Arrived previously	803,101—805,468	
		807,427
Exported during past three days	8,425	
Exported previously	741,374—749,799	
Stock on hand and on shipboard—bales		57,628

CONSUMPTION OF AMERICAN COTTON IN GREAT BRITAIN.

Stock of American cotton on hand in, and afloat for Great Britain, Sept. 30, 1868	177,850
Exports from the United States from 1st September, 1868, to 21st May, 1869	884,857
	1,062,707
Stock of American cotton on hand in, and afloat for, Great Britain, 21st May, 1869 (as per cable)	360,000
Showing consumption in Great Britain, and exports to the continent, (18,255 bales per week)	693,707
	1,062,707

CONSUMPTION IN NORTHERN MILLS.

Stock on hand at the mills, 30th September, 1868	30,000
Received per railroad direct from interior towns up to 30th April	241,000
Received from shipping ports	475,000
	746,000
Stock on hand and in transit, 30th April, 1869	120,000
Showing consumption from 1st September, 1868, to 30th April, 1869, (average for thirty-five weeks, 17,885 per week	626,000

A consumption of only 15,000 bales per week for the next seventeen weeks, up to first September, will require 135,000 bales in addition to the stock at the mills.

THE INCOMING COTTON CROP.

Received at the ports from the 1st September to 21st May—bales	1,915,792
Received at Northern mills per railroad from the interior	241,000
Taken for consumption by Southern mills, estimated	60,000
Stock on hand at interior towns at latest dates	34,241
	2,251,033

TOBACCO—The demand has been very active since our last review, lugs and the lower grades of leaf composing a large portion of the purchases. Price are firm and unchanged. We quote:

	Light.	Heavy.
Refused	6@ 7c.	7@ 8c.
Common Leaf	8@ 9c.	9@10c.
Medium	9@10c.	10@11c.
Good	10@11c.	11@12c.
Fine	12@14c.	12@15c.
Choice Selections	14@15c.	15@19c.
Fine Wrappers	——c.	16@25c.

TOBACCO STATEMENT.

Stock on hand September 1, 1868—hhds		2,183
Arrived during the past three days	740	
Arrived previously	11,624—12,364	
		14,547
Exports during past three days	597	
Exported previously	4,482—5,079	
Broken up for baling, city consumption, etc	867—5,946	
Stock on hand and on shipboard not cleared		8,601

SUGAR AND MOLASSES—The sugar market is more animated, and all the receipts about 175 hhds., together with 30 to 40 hhds. from seconds, were sold at previous prices, viz: 8@9¼c. ℔ lb for inferior to common, 10½c. for common, 12¼c. for good fair, 12½@12⅝c. for fully fair, and 13¼@13⅜c. for prime. A lot of reboiled Molasses brought 60. ℔ gallon.

COFFEE—The market is quiet. We quote nominally prime (gold duty paid) 16⅜@17¼c. ℔ lb, good 15⅞@16⅛c., fair 15@15⅛c., ordinary 14@14⅜c. ℔ lb. Stock in first hands 18,010 bags, in second hands about 25,000.

IMPORTS OF COFFEE INTO NEW ORLEANS.

Imports from Rio from 1st July, 1868—bags	100,441
Sales for consumption since 1st July, 1868	82,431
Stock in first hands 21st May—bags	18,010

SALT—The demand for Liverpool is active. We quote fine $2 35@2 40, coarse $2 25@2 30 ℔ sack, large lots from warehouse 10c. ℔ sack less.

HIDES—Dry hides are quiet at previous prices, while wet city slaughter are active and firm. We quote dry salted 16@17c.; country dry flint 17@18c.; Texas stretched 19@20c.; Mexican 20@21c.; wet city slaughter steers 8@8⅜c.; cows as they run 8½@8⅝c.; kips 10@12. ℔ lb.

BACON—Is very dull to-day, and only a jobbing and retail business is doing, at 13¼c. ℔ lb for shoulders, 16½c. for rib sides, 17¼c. for clear rib sides, and 17½c. for clear sides. 5 casks clear rib sides sold at 17¼c., and 10 tierces sugar-cured hams at 19¼c. ℔ lb.

CATTLE.

Texas Beeves, corn fed, first quality ℔ lb net		10 to 14c.	
Texas Beeves, first quality, ℔ head	$	— to	50
Texas Cattle, second quality, ℔ head	$	30 to	40
Texas Cattle third quality, ℔ head	$	— to	25
Hogs, Western, ℔ lb, net	—	8½ to	—10
Sheep, first quality, ℔ head,	$4	to	7
Sheep, second quality, ℔ head,	$	— to	3
Sheep, third quality, ℔ head	$	— to	1 50
Milch Cows, choice, ℔ head	$	80 to	120
Milch Cows, ℔ head	$	50 to	80
Texas Cows with calves	$	— to	20 50
Yearlings ℔ head	$	12 to	16
Calves ℔ head	$	8 to	15

EDITORIAL.

Our Acknowledgements are due to S. Black, Esq., Superintendent of the Middle Division Pennsylvania Railroad, for annual report of the Auditor General's Report of the State of Pennsylvania, of the railroad, canal and telegraph companies for the year 1868.

To the Supervisors of the Louisiana State Seminary of Learning for the annual report for 1869, and to the Superintendent of that institution for an invitation to attend its annual commencement exercises on the 30th June next.

To the officers of the Southern Express Company, New Orleans, for complimentary package, marked D. H.

To the Secretary for the proceedings of the annual meeting of the Board of Trade, held in Evansville.

To the directors of the Augusta, Ga., cotton factory, for copy of their last report.

To the Jackson Railroad for an invitation to accompany an excursion.

Institutions of Learning are requested to send copies of annual report to the Review office.

Railroad Companies are respectfully reminded that their annual reports may be advantageously sent to the Review office, as one of its chief objects is to aid in promoting the internal commerce of the country.

As DeBow's New Orleans Review is the medium of advertising various collegiate and academical institutions throughout the South, the editor will take pleasure in giving applicants any information in regard to the terms, course of instruction, with letters of introduction to the principals who conduct these institutions.

We commend Mr. George H. Vinten and his stock of printing material to all who may wish presses, type, paper, ink, or other materials in his line. Orders will be filled by him faithfully, and on liberal terms.

Graham's New Orleans Directory.—We take it for granted that Messrs. Madden & Graham, being men of business, can procure as correct a catalogue of our citizens and of their pursuits as anybody else; but in the execution of the printing and publication of the catalogue, we know no one whom we can more safely recommend than W. L. Graham, Esq. He has printed the June and July, 1868, number of this Review, and our readers will find a specimen of his work, which will show his ability to publish a first rate Directory.

Messrs. Thomas B. Bodley & Co. have established themselves as energetic and faithful representative of the interests confided to them by the manufacturers of agricultural machinery and implements. When we note the pressure of the labor question, and hear thoughtless persons insist upon the importation of coolies and other incongruous races, for the purpose of making cheap cotton for the consumer, we advise the planter to study the application of steam to the culture and the preparation of his crops—to seek every improved implement which will diminish the necessity for human or animal power. He can study these subjects to no more advantage than under the intelligent advice, and amongst the extensive assortment, of Messrs. B. Bodley & Co., No. 9 Perdido street, New Orleans.

We are indebted to A. Thomson & Co., the extensive and enterprising refiners and dealers in sugars, syrups and molasses, for a liberal present of refined sugar and golden syrup, from their establishment, at 48 Tchoupitoulas street, New Orleans. While the refiners of sugar in Philadelphia and other points distant from the plantations are besieging Congress for an increase of duties on raw sugar imported, the manufacturers of New Orleans possess local advantages which will enable them to prepare all the domestic and much of the foreign sugar for consumption. We are glad to see that, upon the memorial of Messrs. A. Thomson & Co., on behalf of the manufacturers of our city, the Common Council has adopted a reduced rate of water supply to manufacturers which will encourage their establishment. This is a mode of encouraging our manufactures which encourages at the same time the labor and real estate of our citizens.

Coleman's Flouring Mill.—This valuable Southern invention, besides being well built of excellent material, possesses some valuable principles of action, which have commended it to general adoption throughout the States of Alabama, Mississippi, Louisiana, Texas, etc., and have secured for it the highest premiums at six different State fairs. Its peculiarities consist in this, that the lower stone is the runner; it is so balanced as to spread equally any excess of feed over the whole grinding surface. The dress of the stone is particularly adapted to the work. Perhaps the best indorsement to our recommendation may be that we have purchased one of the mills ourselves from Mr. H. Dudley Coleman, son of the patentee, who continues the manufacture at the old stand, 205 Tchoupitoulas street, New Orleans. It may be as well to remind planters that Mr. Coleman repairs all kinds of mills, and can furnish all the mill stock that may be required. Read his advertisement in De Bow's Southern and Western Business Directory.

Mr. G. D. Bustamante is a Southern man of business, who has turned his characteristic energy upon the business of furnishing substitutes for human and animal labor in crop culture. He has had the sagacity to observe that when deprived of the labor to which we were accustomed, the Southern people began to seek out inventions by which they can substitute the steam engine and the sulky plow for the costly labor of a number one hand. He is now a missionary of this great truth, and is supplying to every planter, according to his wants, the precise implement that his plantation may require. We may add, that he also administers to poor and failing lands those stimulants of phosphate and guano which they require, and is, therefore, not merely a machinist, but a physician. We do not doubt but that, personally or by correspondence, he can prescribe for the ent agricultural inventions when we last saw him, and from his well known wants of any planter or mechanic, for he exhibited thirty valuable agricultural and labor saving inventions at our last State Fair, from among the many for which he is agent, and, judging from his well known energy, we doubt not he will be found exhibiting double that number at our next fair. Success to such reconstructionists of our industrial interests as Bustamante and Bodley.

Our country subscribers will find it alike safe, and convenient to remit by post-office orders. There are certain postoffices which are authorized to receive money on orders. They are not very numerous, but may be easily reached from any part of the Southern States. This process of remittance is very simple: the depositor applies to the Postmaster for a money order; the Postmaster fills it up and forwards it to the New Orleans office. It is there paid to the order of the Review, and thus furnishes a receipt, and a witness of the transaction. If the order miscarry, it will be duplicated by the Postmaster, so that there can be no loss. Our subscribers will thus see a means of remitting us their dues, and we have no objection to their making a reasonable deduction if they wish from the amount due us. We should have to incur the expense of a special collector to reach them. This would cost us a good part of these subscriptions. It is, therefore, as well for us to pay a part of the commission, to the subscribers if they request it. The summer season is now coming on, when our receipts from the Southern country decline, because of the inconvenience of remitting. Yet we need money as much, or more, at that season, than at any other. Therefore, our subscribers will please send their dues throughout the summer. We have examined

the names of offices authorized to remit in a few of the Southern States, and may add, that while Texas has but four, and Louisiana but nine such offices, Iowa has seventy-six.

BLYMYER, NORTON & CO., of Cincinnati, have, perhaps, given more attention to the expression and chemical treatment of cane juice than any other manufactory in the Union. This has been shown by the publication of the *Sorgho Journal* established by them for the purpose of developing that department of industry. The change in the labor relations of the South has tended to the subdivision of lands, and the organization of smaller sugar farms. On this point we may say that the consolidation of the capital and labor employed in a given production enables the planter to make and sell cheaper to the consumer. It is very probable that this subdivision may make it more profitable to the individual laborer, or planter. With this change however, the scientific and mechanical knowledge acquired by Messrs. Blymyer, Norton & Co. in the culture and manufacture of sorghum sugar and syrup has been valuable, and applicable to the small crop system of cane sugar as adopted in the South. They find that the same mill and syrup evaporator employed in the expression of sorgho cane and granulating of sorgho syrup, will answer also for similar purposes in the sugar culture and manufacture of Louisiana, Florida and Texas. As it is our duty to encourage the introduction of all improvements which will promote the interests of our planters, we commend this house and its machinery to their careful and candid examination. We may add that Blymyer, Norton & Co., of Cincinnati and Mansfield, have been in the cane machinery business for more than ten years, and enjoy the reputation of being a solid concern, with a capital estimated at half a million dollars.

E. J. HART & CO. AS DRUGGISTS.—It is nothing extraordinary to deal largely in staple and fancy groceries, but the enterprise of furnishing a large stock of pure and fresh drugs is one in which the Southern public should take a deep interest. The consumption of drugs and other chemical medicines throughout the Valley of the Mississippi is immense. The demand for these staples is spreading into the Rocky Mountains, and along the whole Northern line between the United States and British America. Have our readers a correct estimate of the importance of this branch of commerce? In 1867 the gross revenue receipts from chemicals, dyes, drugs and medicines were $3,750,949 63. If we assume that these were entered at 33½ per cent. duty, it would amount to $9,125,948 89. But this is a small amount in comparison with the domestic manufacture within the United States. This would, no doubt, double the importations. We have, therefore, nearly thirty millions of dollars expended in medicine for the million. If we assume one dollar a head annually as the sum represented by popular consumption, we should have about seventeen millions of dollars paid by the population of the Valley of the Mississippi and its tributaries. Now this is a sufficient basis to justify the establishment of chemical works and laboratories in New Orleans. It will especially justify the concentration and condensation of all those heavy drugs, dye woods, and minerals which pass our doors on their way from the South American ports to the Eastern chemical works. Why may not the jalap, sarsaparilla, and ipecacuana, with the gums and balsams, be as well manufactured and manipulated in New Orleans as elsewhere? Then there are the vegetable dyes, which enter so much into the manufacture of American fabrics—the logwood, madder, Brazil wood, arnatto, and an hundred others which are imported in a rude state to be converted into use. Messrs. E. J. Hart & Co. have taken the initiative by offering an extensive assortment, from the most celebrated laboratories of Europe. They have secured the services of Dr. F. A. Keffer, a graduate of the University of Pennsylvania, and a practical chemist and pharmaceutist, to conduct this branch of their extensive business, and we are authorized to state that this enterprising house has already taken steps to organize a laboratory in this city on a scale equal to that of any in the Northern cities. This is much better than importing drugs and specifics from the North to be sold at a New Orleans agency, without other gain or profit to our citizens. We will take the liberty of saying that we need greatly a school in our University of chemical science as applied to the arts, and especially to practical pharmacy, and we know none who are, by their large means and extensive patronage, better able to found and endow such a professorship, in connection with their

laboratory, than the house of E. J. Hart & Co. Let us hope they will carry out this public spirited idea. There can be no branch of manufacture more useful to the South than this, more profitable to the owner, and none better adapted to the character of our climate and the demands of our customers.

Book Notes.—*Appleton's Journal.*—From the days of Tonson and Murray, the bookseller has been the Macænas of letters. He is very much tempted togarner together and publish in his own name all the works he has contributed to put before the world. Much as we men of the pen incline to grumble at these publishers, they are our "Dutch uncles", scanning and scolding our works, but atlast the resource to which the improvident or impracticable man of letters may always appeal for advice or assistance. And so Appleton, the great obstetrician of ideas is to have his "journal." Why not? Who has better resources, foreign and domestic, to select from? Who can publish cheaper than he who has already in type the chapter he spreads before the public? We are particularly pleased with one feature in this journal. It seems to have no partisan feeling. This is a relief. Not uncommonly we find Northern periodicals employed as a medium for infusing sentiments offensive, unjust, and wholly unnecessary. The terms of this journal are much lower than a similar work could be published among us.

We are indebted to Harper Brothers, publishers, Franklin Square, New York, for the following volumes, issued from their press: "Travels and Adventures in the Territory of Alaska," by Frederick Whymper. The author of this work is one of the numerous British tourists who having, as he expresses it, "a little superfluous energy," and we may infer, some time and money at his disposal, set forth in pursuit of the uncomfortable, in savage and inhospitable lands. For this we are much obliged to them. Such public philanthropists have, from the days of Marco Polo, added greatly to the stock of scientific and practical knowledge. We are inclined to coincide with the author in the opinion that the northern Pacific was readily traversed by way of the Aleutian Islands, even in the imperfect craft of the earliest ages. We are, therefore, prepared to recognize the resemblance between the Tartars and the Indians of North America. It is probable that the immigrants from Asia would have gone down the coast of this continent until each people should have reached a climate comparing with its own, just as European immigrants would do.

"Her Majesty's Tower," by William Repworth Dixon.

"Fishing in American Waters," by Genei C. Scott.

"That Boy of Norcoth," by Charles Lever.

Messrs. J. M. Jacquet & Co., 139 Royal street, for the first number of Victor Hugo's popular work, "Le Homme Qui Rit."